USER'S GUIDE

emachines etower Series

Version 3.0

emachines

Important Safety Instructions

The following instructions pertain to the risk of fire, electric shock or bodily injury. Please read all of these instructions carefully.

1. Save these instructions for later use.
2. Follow all of the instructions and warnings marked on this product or included in this manual.
3. Do not use this computer on an unstable cart, stand or table. The product may fall, causing serious damage to the product.
4. Slots and openings in the cabinet and the back have been provided for ventilation. To ensure reliable operation of your computer, and to protect it from overheating, do not block or cover these openings. Don't use this product on a bed, sofa, rug or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
5. Never push objects of any kind into the computer through the cabinet openings. Objects may touch dangerous voltage points or short out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the product.
6. This computer should only be connected to the AC power source indicated on your computer system's information label. If you are not sure of the type of AC power available, consult your dealer or local power company. Only connect this computer to a power outlet that matches the power requirements of this computer.
7. Do not allow anything to rest on the power cord. Do not locate this product where people will walk on the cord.
8. If you have to use an extension cord with this computer, make sure that the total amperage rating of all equipment plugged into it does not exceed the amperage rating of the extension cord. Also, make sure that the total of all products plugged into the main AC power outlet does not exceed 15 amps.
9. Unplug your computer from the main electrical power outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

10 Do not use this computer near water.

11 This product is eqiupped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert or replace your obsolete outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.

Maintenance

If the product does not operate normally, adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and may require extensive repair work to restore to normal operation.

Unplug this product from the main power outlet and call for service under any of the following conditions:

1 If the power cord or plug is damaged or frayed.

2 If liquid has been spilled into the product.

3 If the product has been exposed to rain or water.

4 If the product has been dropped or the cabinet has been damaged.

5 If the product exhibits a distinct change in performance indicating a need for service.

Stop

If you ever have to remove the main system unit cover, observe the following precautions:

1 The power supply cord must be unplugged before the main system unit cover is removed. (Separe le cordon d'alimentation et puis enleve le couvercle.)

2 Once removed, the cover must be replaced and screwed in position before the power supply cord is plugged back in. (Apres le couvercle a enleve, visse le couvercle en place et remettre le cordon d'alimentation.)

Wichtige Sicherheitsvorschriften Unbedingt Beachten

Allgemeine Sicherheit

Die nachfolgenden Anweisungen betreffen die Gefahr von Verletzungen durch elektrische Spannung, Feuer und mechanische Einwirkung. Bitte lesen Sie diese Anweisungen sorgfältig.

1. Beachten Sie alle Hinweise, die am Gerät selbst angebracht oder in den zugehörigen Handbuchrn vermerkt sind.

2. Stellen Sie das Gerät an einem sicheren, stabilen Arbeitsplatz auf.

3. Am Gerät angebrachte Öffnungen (Schlitze und sonstige Öffnungen) dienen der Belüftung des Gerätes. Um ein zuverlässiges Arbeiten des Geräts zu gewährleisten und um Überhitzung zu vermeiden, müssen diese Öffnungen unbedingt freigehalten werden. Betreiben Sie das Gerät nie auf Betten, Sofas oder anderen, weichen Unterlagen.

4. Stecken keine Gegegenstände (Schraubenzieher, Büsroklamern etc.) in die Ö ffnungen. Sie wurden damit Kurzschlüsse herbeiführen die zur Zer störung des Geräts führen, sich der Gefahr eines Stromschlages aussetzen oder das Gerät in Brand setzen.

5. Das Gerät darf nur an vorschriftmäßige Steckdosen mit der auf dem Gerät angegebenen Netzspannung angeschlossen werden. Wenn Sie nicht sicher sind, welche Netzspannung richtig ist, wenden Sie sich an den Lieferanten des Gerätes oder an das zuständige Elektriziträtswerk. Bitten nur an Genügend stark abgesicherte Steckdosen anschließen, die der Leis tungsaufnahme des Gerätes entsprechen.

6. Auf das Netzanschlußkabel dürfen keine Gegenstände gestellt werden. Legen sie das Netzkabel so, daßniemand darauftreten oder darüber stolpern kann.

7. Wenn Sie Verlängerungskabel benutzen, müssen Sie sicher sein, daß die gesamte Leistungsaufnahme nicht größer ist als das Verlängerungskabel zulaßt. Der gesamte Stromverbrauch aller angeschlossenen Geräte darf nicht mehr als 15 A betragen.

8. Wenn Sie das Gerät reinigen, muß das Netzkabel aus der Steckdose gezogen werden.

9. Das Gerät dürfen Sie nicht in der Näh von Wasserleitungen benutzen.

Wartung Des Computers

Wenn der Computer nicht ordnungsgemäß arbeitet, dürfen Sie nur die Einstellungen vornehmen, die im Handbuch genannt werden. Andere Einstellungen oder Verän derungen können den Computer beschädigen oder zerstören. Umfangreiche und kostspielige Reparaturen würden notwendig werden, um das Gerät wieder betriebsfähig zu machen.

Ziehen Sie den Netzstecker aus der Steckdose und verständigen Sie den zuständigen Kundendienst bei folgenden Storungen:

1. Netzkabel ist defekt oder strak abgenutzt.
2. Flüssigkeit ist in das Gerät geschüttet worden.
3. Das Gerät war Regen oder Leitungswasser aus-gesetzt.
4. Das Gerät ist heruntergefallen oder das Gehäuse ist beschädigt.
5. Das Gerät arbeitet nicht mehr richtig.

Achtung

Wenn Sie das Gerät Öffnen müssen (Abnahme der verschraubten Haube), ist unbedingt folgendes zu beachten:

1. Das Netzkabel muß aus der Steckdose gezogen werden und zwar bevor Sie das Gerät Öffnen.
2. Die Haube muß wieder monitiert und verschraubt werden. Erst dann darf das Netzkabel wieder eingesteckt werden.

Safety Instruction

Ensure that the appropriate power cord is supplied with personal computer. If the power cord is not supplied with personal computer, use the correct listed cord sets as below:

Rating	Type	Note
125V, 10A Min. 18AWG/3	SVT MAX. 4.5m long	— One end terminated with molded on cord connector body. Attachment plug cap with a nama 5-15P.
250V, 6A Min. 18AWG/3	SVT Max. 4.5m long	— One end terminated with molded on cord connector body.) Attachment plug cap with a nama 6-15P.

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Chapter 1
Introduction

Note

The information in this user's guide is subject to change without notice.

This chapter describes the major features of your computer.

System Features

Your personal computer is a powerful, versatile, and high performance system that offers exceptional speed and convenience in a compact design.

Your computer offers the following features:

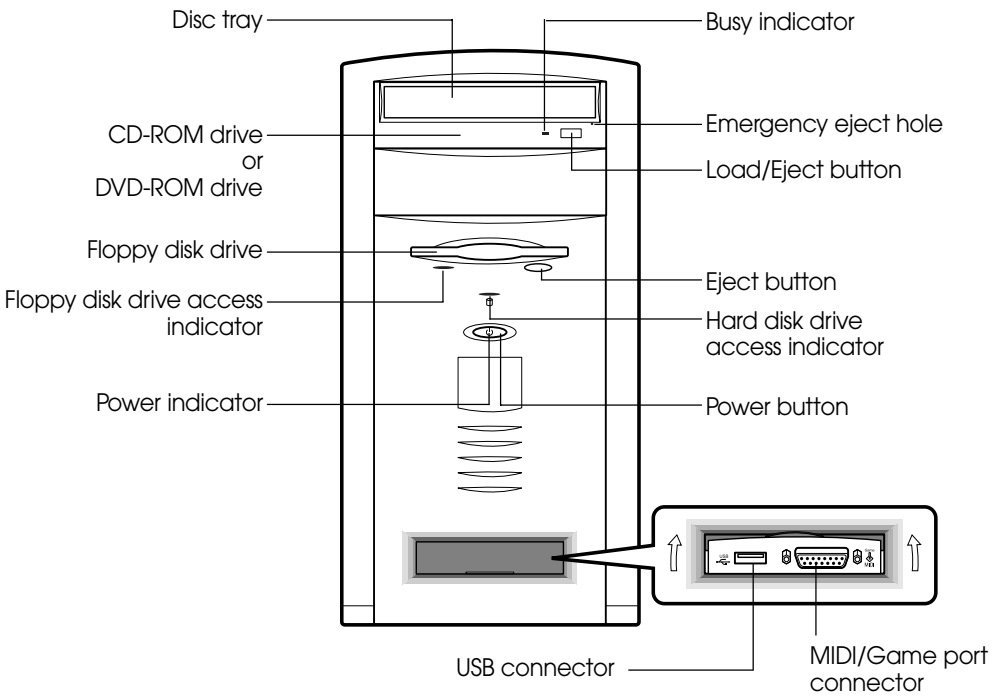
- Micro ATX form factor
- Intel Celeron processor in a PPGA package
- Two DIMM sockets, expandable up to 256MB using SDRAM modules
- Math coprocessor built in the microprocessor chip
- PCI and ISA bus interface
- Two built-in PCI bus Enhanced IDE hard disk drive controllers
- Built-in AGP video controller and SGRAM video memory (4MB) on the mainboard
- Built-in high performance audio CODEC and PCI audio interface

- Intel 440LX core and IT8673F super I/O controller
- Advanced Power Management (APM) and Advanced Configuration and Power Interface (ACPI)
- Two 32-bit PCI expansion card connectors and two 16-bit ISA expansion card connectors (One PCI connector and one ISA connector share a single expansion slot)
- System and video BIOS shadow RAM
- Password function
- Two USB ports
- One built-in serial port and one built-in parallel port
- A built-in PS/2 style keyboard port
- A built-in PS/2 compatible mouse port
- Three audio jacks and one MIDI/Game port connector
- Plug-and-Play (PnP) BIOS feature

System Overview

The following section describes names and functions of your system.

Front



Note

Your CD/DVD-ROM drive may differ from the illustrations described in this user's guide.

Floppy Disk Drive

The floppy disk drive accepts 3.5-inch floppy diskettes.

Eject Button

Press this button to eject any diskette in the drive.

Floppy Disk Drive Access Indicator

The floppy disk drive access indicator lights up when the drive is reading data from or writing data to a diskette. Wait until the access indicator turns off before removing a diskette from the drive.

Power Button (⏻)

The power button controls the system's AC input power. When the computer is turned off, pushing the button turns on the computer. The power indicator lights up when the computer is receiving power. When the computer is on, pushing the button turns off the computer.

Power Indicator

This Power indicator in the center of the power switch lights up when the computer is on.

Hard Disk Drive Access Indicator (🖴)

The hard disk drive access indicator lights up when one of the hard-disk drives is reading data from or writing data to the drive.

CD/DVD-ROM Drive

This drive is used to play DVD (DVD-ROM drive only), music CDs, photo CDs, video CDs, or to load software package onto the hard disk drive.

Disc Tray

The disc tray accepts a CD/DVD-ROM disc.

Busy Indicator

The busy indicator lights during initialization and data-read operations.

Emergency Eject Hole

Insert a rod here to eject the tray manually only when there is no power available.

Load/Eject Button

Pressing this button loads or ejects the CD/DVD tray.

Drive Bay

The drive bay can accommodate devices such as a floppy disk drive, a tape drive, or a CD-ROM drive.

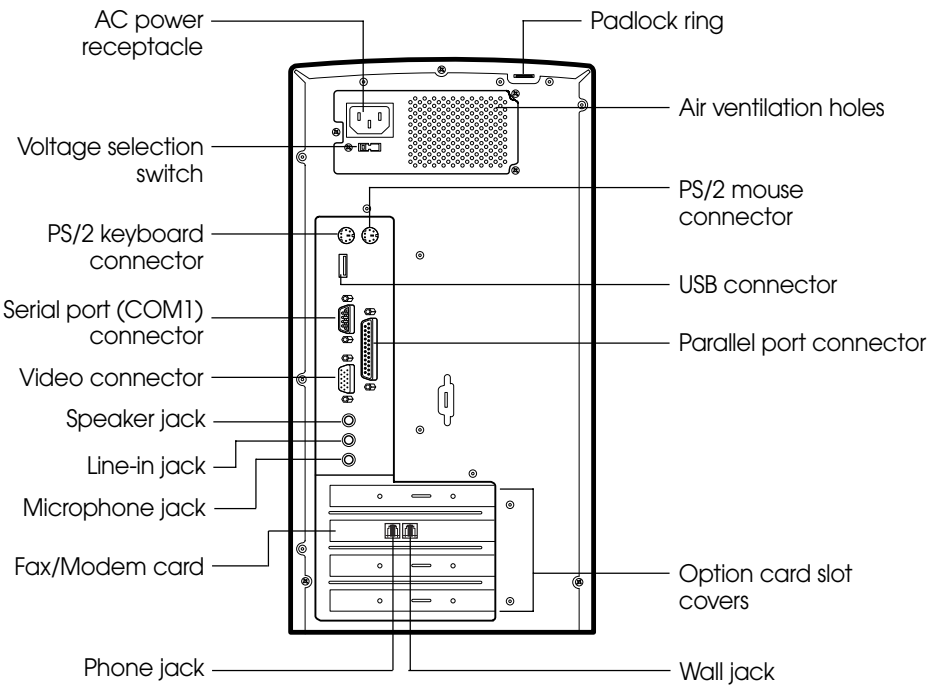
USB Connector

You can connect any USB compliant devices to the USB connector. USB devices include low-speed peripherals such as microphone, digital joystick, and speaker.

MIDI/Game Port Connector

You can connect any of a number of MIDI or game input devices to the MIDI/Game port. For example, you can connect a joystick, game pad, or steering wheel for playing computer games rather than using the mouse as your input device.

Rear



Note

Your actual modem card may differ from the illustrations shown in this user's guide.

Keyboard Connector

The PS/2 style keyboard plugs into the keyboard connector.

Mouse Connector

The PS/2 compatible mouse plugs into the mouse connector.

USB Connector

You can connect any USB compliant devices to the USB connector. USB devices include low-speed peripherals such as microphone, digital joystick, and speaker.

Serial Port (COM1) Connector

You can connect a serial device, such as an external modem and printer, to the serial port connector.

Parallel Port (LPT1) Connector

You can connect a parallel device, such as a printer, to the parallel port.

AC Power Receptacle

Your system power cable plugs into the AC power receptacle.

Voltage Selection Switch

The voltage selection switch must be set to match the AC power voltage.

Caution

Setting the voltage selection switch incorrectly will damage your computer. Verify that this switch is set correctly for your AC power voltage before turning on your computer.

Air Ventilation Holes

There are holes for air ventilation.

Video Connector

The signal cable from your monitor plugs into the video connector.

Speaker Jack

The Speaker jack can be used to attach most speakers with integrated amplifiers.

Line-in Jack

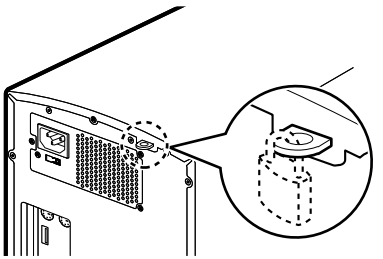
The Line-in jack can be used to attach a record/playback device such as a cassette player, CD player, or VCR.

Microphone Jack

The microphone jack can be used to attach a personal computer microphone for integrating your own voice or musical input into a sound application.

Padlock Ring

The padlock ring allows you to secure the system cover to the chassis to prevent unauthorized access to the inside of the computer. To use padlock ring, insert a commercially available padlock through the ring and then lock the padlock.



Telephone Jack

You can connect the RJ11 phone jack cable from the telephone to this connector.

Wall Jack

You can connect the RJ11 wall jack cable for using faxes, e-mail, and internet access.

Chapter 2
Setting Up Your System

This chapter describes how to set up and turn on/off your system. Just follow the steps in this chapter.

1. Selecting a Location

Before you set up your computer, it is important to choose a safe and convenient location that provides the following:

- A large, sturdy desk or table strong enough to support the weight of your system and all of its components.
- A flat and hard surface. Soft surfaces like beds and carpeted floors attract static electricity, which can erase data on your disks, damage the computer's circuitry, and prevent proper ventilation.
- Good air circulation. Leave several inches of space around the computer so air can move freely.
- Moderate environment conditions. Select a cool, dry area and protect your computer from extremes in temperature, humidity, dust, and smoke. Avoid direct sunlight or any other source of heat.
- Appropriate power sources. To prevent static charges, connect all your equipment to three-hole, grounded outlets. You need one outlet for the computer, one for the monitor, and an additional outlet for a printer and any other peripheral devices.
- No electromagnetic interference. Do not place your system too close to any electrical device, such as a telephone, which generates an electromagnetic field.

2. Checking the Voltage Selection

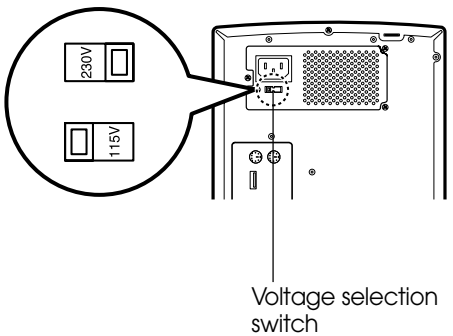
A power supply is integrated into the system to provide power to the mainboard, option cards, and peripheral devices. The power selection switch on the system back panel can be used to set the power supply to operate at 115V or 230V.

To verify that your system has the correct setting for your environment, check the voltage selection switch.

Warning

If you set the voltage selection switch incorrectly, your system will be damaged. Make sure this switch is set correctly for your location before turning on your computer.

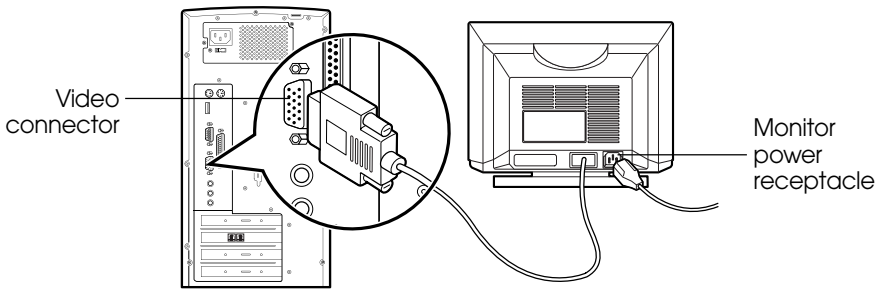
Using a tool such as an opened paper clip, slide the voltage selection switch to the correct voltage position.



3. Connecting Your Peripheral Devices

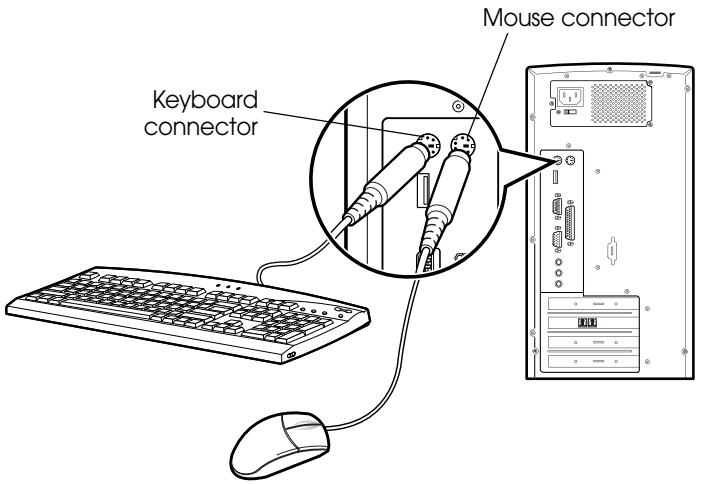
Connecting a Monitor

Connect the monitor cable to the video connector on the rear panel of your system. If the connector has retaining screws, be sure to tighten them.



Connecting a Keyboard and Mouse

Plug the keyboard and mouse cable connectors into the keyboard and mouse connectors on the rear panel of your system.

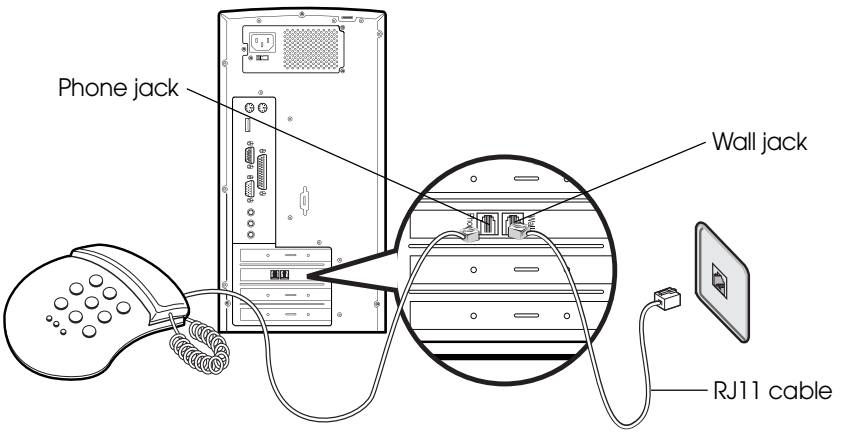


Note

Depending on the model, your keyboard may have no shortcut keys (Internet, Email, Search, Mute, Volume Up, and Volume Down).

Connecting Modem Cables

If your system has an optional modem card, connect the phone and wall lines to the modem card connectors.



Note

Depending on your computer model, your modem may look slightly different than those pictured. For detailed information about using your modem, refer to the modem manual.

Caution

For protection of your computer during a lightning storm, unplug the wall jack connector from the wall outlet. This will prevent damage to the computer due to lightning.

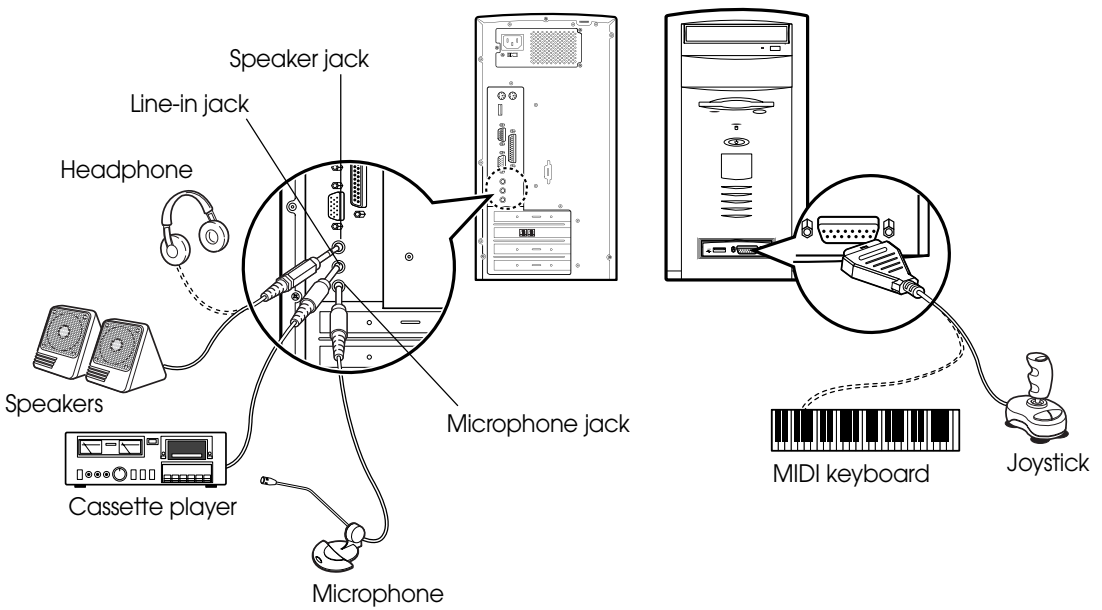
Connecting Audio Devices

Your computer has three integrated audio controller jacks (Speaker, Line-in, and Microphone jack) and one MIDI/Game port connector.

You can connect a microphone to the microphone jack, a speaker or headphone to the speaker jack, and a cassette player, CD player, or VCR to the line-in jack.

You can connect MIDI or game devices to the MIDI/Game port connector. For example, you can connect a joystick, game pad, or steering wheel. Using these game devices is better than using the mouse to play computer games.

To connect audio devices to the three jacks and the MIDI/Game port connector, make sure your computer is turned off and then plug the connectors from the audio devices into the each connector on the rear panel of your computer.

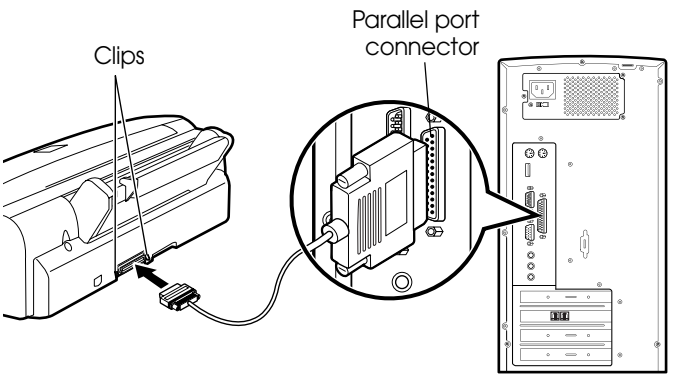


Connecting a Printer

Connect the one end of the printer cable to line up with the parallel connector and then plug it to the computer. If the plug has retaining screws, tighten them.

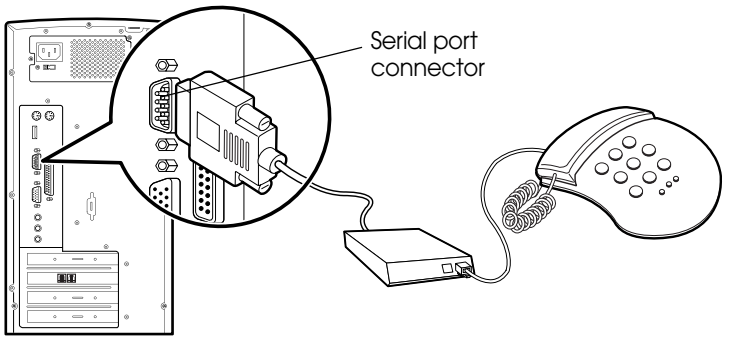
Connect the other end of the cable to the printer. To secure the cable, squeeze the clips at each side of the printer port and push them into place.

Attach the printer's power cord to the printer and plug it into an appropriate grounded electrical outlet.



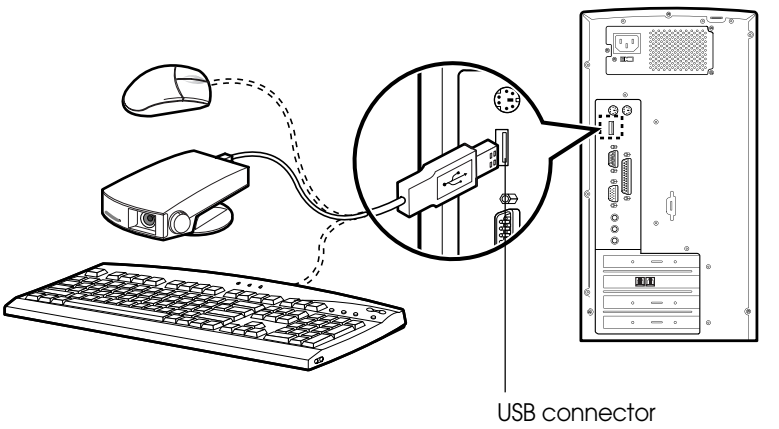
Connecting a Serial Device

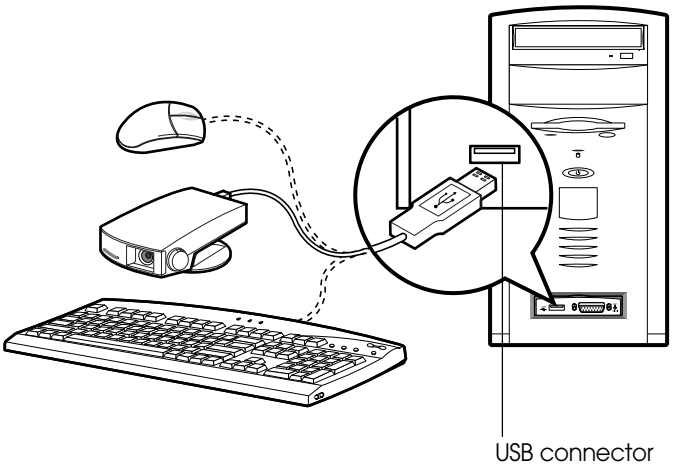
If you have a printer, a modem, or other peripheral device with a serial interface, you can connect them to the serial port on the back panel of the computer.



Connecting the USB Devices

If you have the USB devices, you can connect these to the USB connectors. To connect a USB device to the USB connector, plug the USB device cable connector into the USB connector of your system.





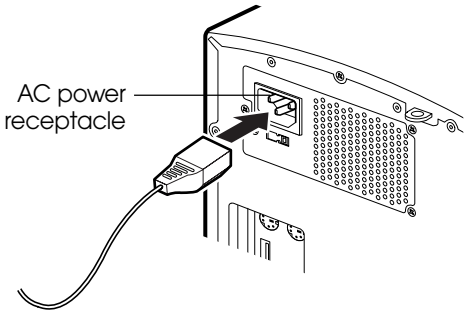
Note

If you are using only one connector, use the most convenient connector for you.

Connecting a Power Cord

Before you plug the power cord into the wall socket, you should set the voltage selection switch to correct position. The voltage selection switch must be set to reflect the correct voltage the system operates on.

If you set the voltage selection switch to correct position, plug the power cord into the AC power receptacle on the back panel. Then plug the other end of the power cord into an appropriate grounded electrical outlet.



Warning

To avoid generating an electric shock, be sure to plug the cord into the system before plugging it into the wall socket.

Caution

For protection of your computer and other devices during a lightning storm, or when it is left unattended and unused for long periods of time, unplug the computer and other devices from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the computer and other devices due to lighting and power line surges.

4. Turning the Computer On and Off

Follow the instructions below to turn on the computer or to turn it off.

Turning On the Computer

To turn on your computer, follow these steps:

1. Turn on the monitor, and any other peripheral devices connected to your computer.
2. Press the power button on the front panel of your computer.
3. The system will load Windows 98.

Note

If the Restore CD is in the CD/DVD-ROM drive while your computer is booting, the computer will be booted with Restore CD. In this case, the "Microsoft Windows 98 Startup Menu" menu will appear. To start Windows 98, remove the Restore CD and restart the computer.

Turning Off the Computer

To turn off your computer, follow these steps:

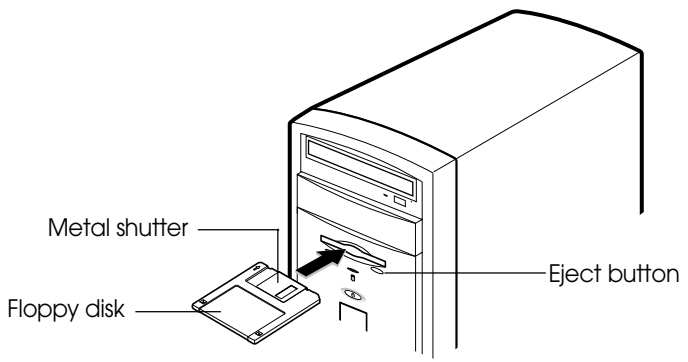
1. Before turning off your computer, save your information and close all application programs you use.
2. Click the Start button, and then click Shut Down.
3. When the Shut Down Windows dialog box is displayed, select Shut down and click OK to shut down the system.
4. Turn off the monitor and any other peripheral devices.

Chapter 3
Using Your Computer

To use your computer, you must install the operating system on your computer. If you are to install Windows 98, follow the instructions in your Windows 98 manual (Windows 98 may come with already installed on your system). To install another operating system such as OS/2 Warp or UNIX, see the manual that came with that system for instructions on installation and use. The procedures in this manual assume that you are using Windows 98 with your computer.

Using a Floppy Disk Drive

If you have a 3.5-inch disk drive, insert the disk with the label facing up and the metal shutter leading into the drive, as shown in the following figure. And then slide the disk into the drive until it clicks into place.



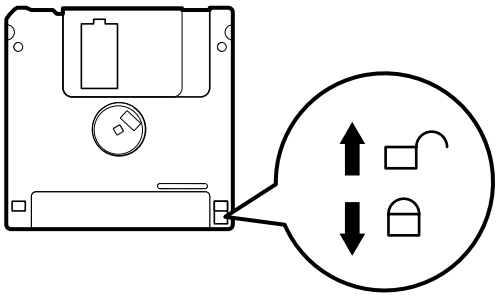
When you want to remove the disk, make sure the drive light is off, and then press the eject button. When the disk pops, remove it.

Caution

Never remove a disk or turn off the computer while a disk drive light is on. You could lose data. Also, remove all disks before you turn off the computer.

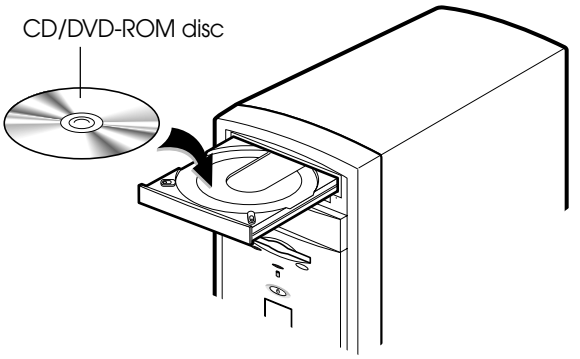
You can write-protect a disk to prevent its data from being altered. When a disk is write-protected, you can read it and copy data from it, but you cannot store new data on it or delete any files it contains.

The write-protect device on a 3.5-inch disk is a small switch on the back of the disk in the lower right corner as shown below. To write-protect a 3.5-inch disk, slide the switch toward the edge of the disk until it clicks into position, exposing a hole in the corner.



Using a CD/DVD-ROM Drive

To insert a CD/DVD into the CD/DVD-ROM drive, first turn on your system. Then press the load/eject button to open the disc tray. When the disc tray pops out, the busy indicator light will flash. Put the CD/DVD in the tray with the label side up. Press the load/eject button again or gently push the disc tray to close it.



When you want to remove the CD/DVD, make sure the busy indicator is off; then press the load/eject button. When the CD/DVD tray pops out, remove the CD/DVD and then press the button again to close the tray.

Notes

- *When your system is turned off, you may need to open the CD/DVD tray. At this time, insert a fine rod such as an opened paper clip into the emergency eject hole as far as it will go. When the tray is slightly open, carefully pull it out.*
- *You computer references the CD/DVD-ROM drive as D: unless you have more than one hard disk drive or partition. Then it automatically recognizes it as the next available drive letter.*

Using Special Keys on the Keyboard

Keys on the keyboard, that are described in the following table serve special functions when your computer is running your operating system or application programs.

Key	Purpose
Tab	Moves the cursor one tab to the right in normal mode and one tab to the left in Shift mode.
Caps Lock	Changes the letter keys from lowercores to uppercase; changes back to lowercase when pressed again. The numeric/symbol keys on the top row of the keyboard and the symbol keys in the main part of the keyboard are not affected.
Shift	Produces uppercase characters or the top symbols on the keys when used with the main character keys. Produces lowercase characters when the Caps Lock function is on.
Ctrl	Works with other keys to perform special (control) function.
Alt	Works with other keys to enter alternate character codes or functions.
Backspace	Moves the cursor back one space, deleting the character to the left of the cursor.
Enter	Ends a line of keyboard input or executes a command.
Insert	Turns the insert function on and off.
Delete	Deletes the character marked by the cursor.
Home, End, PgUp, PgDn, →,← , ↑ ,↓	Control cursor lacation.
Esc	Controls the current command line or operation.
Num Lock	Changes the function of the numeric/cursor keys from entering numbers to positioning the cursor.
	Changes use of the numeric keys on the numeric keypad as mouse keys. To enable the function of the key, set the Mouse tab in "Accessibility Options" in Control panel.
F1-F12	Perform special functions within application programs.
Print Screen	Outputs the screen display captured on the clipboard. When used with alt key, this key captures active window.
Sys Rq	Captures the screen display on the clipboard. When used with Alt key, this key captures active window.
Scroll Lock	Controls scrolling in some applications.
Pause	Suspends the current operation.
Break	Stops the current operation (used with Ctrl).

Key	Purpose
	Displays the start menu.
	Displays the short menu for the selected location. It correcsponds to the right button of a mouse and displays a different menu applicable to Windows 98 other application programs.
Internet*	Launches the Internet browser.
Email*	Launches an e-mail application.
Search*	Launches an Internet search page.
Mute*	Mutes the sound.
Volume Up*	Increases the current volume level.
Volume Down*	Lowers the current volume level.

** Depending on the model, your keyboard may have no these keys.*

The Caps Lock, Num Lock, and Scroll Lock keys work as toggles; press the key once to turn on a function and again to turn it off. When the function is enabled, the corresponding light in the upper right corner of the keyboard is on.

The numeric keys on the numeric keypad of your keyboard can be used as MouseKeys to move a mouse pointer. To use the numeric keys as MouseKeys, first you should set the Mouse tab in “Accessibility Options” of the Control Panel.

Notes

- *Depending on the model, your keyboard may have no shortcut keys (Internet, Email, Search, Mute, Volume Up, and Volume Down).*
- *In case of Easy Keyboard, you can configure the Internet, Email, and Search buttons to launch an application or Internet browser of your choice. To do this, click Start, point to Easy Keyboard, and then click Key Configuration. When the Shortcut Key Configuration window appears, select the execution files for the buttons.*

Using a Mouse

Generally a mouse functions as follows:

- Click () : Press and release the left mouse button once.
- Double click () : Quickly press and release the left mouse button twice.
- Click with the right mouse button () : Press and release the right mouse button once.
- Drag () : While pressing and holding down the left or right mouse button, move it to another location and then release the mouse button.

When using Windows 98, you can change mouse button configurations in the Mouse section of the Control Panel. If you are left-handed, you can change configuration from right-handed to left-handed. See “mouse, reversing buttons” in the Help index for more information.

Changing the Display Resolution and Color Depth

To change the display resolution and color depth, follow these steps:

1. Click the Start button, point to Settings, and click Control Panel.
2. Double-click the Display icon. Or click the right mouse button on the empty desktop area and click Properties.
3. When the Display Properties window appears, click the Settings tab.
4. Select the color depth from the Colors area and the resolution from the Screen area. Click OK.
5. If you changed color depth, the system would reboot. If you changed resolution only, the screen will be changed to the new settings.

Controlling the Audio Volume

You can control the audio volume level by using the volume up/down button on the keyboard, volume control box, or Master window.

To control the audio volume by using the volume control button, press the volume up/down button on the keyboard.

To control the audio volume by using the control box, follow these steps:

1. Click on the Speaker icon located on the right of your Windows taskbar.
2. When the volume control box appears, drag the volume bar up or down to adjust the audio volume level.

To control the audio volume level for each device by using the Master Out window, follow these steps:

1. Double-click the Speaker icon located on the Windows 98 taskbar.
2. When the Master Out window appears, in the each device area, drag the volume bar up or down to adjust the audio volume level.
3. Click the Close button.

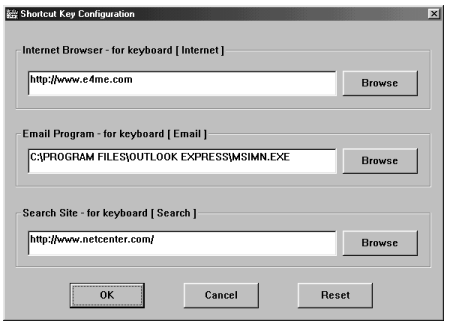
Configuring Shortcut Keys

> **Note**
>
> *The configuration program is available only on the Easy Keyboard (has shortcut keys) model.*

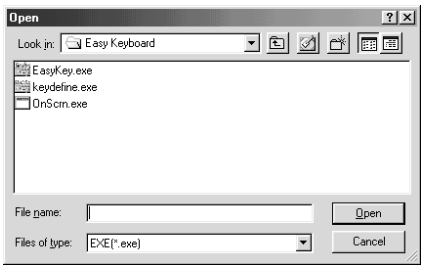
Your system provides a configuration program for mapping programs to the Shortcut keys (Internet, Email, and Search) on the upper-right corner of the keyboard.

To map a certain program for short-cut key on the keyboard, follow these steps:

1. Click Start, point to Programs, point to Easy Keyboard, and then click Key Configuration.
2. The Shortcut Key Configuration window will appear.



3. Click the Browse button.
4. When the Open window appears, select a program file for the shortcut key.



5. Click the Open button.
6. In the Shortcut Key Configuration window, click OK.

Chapter 4
Using the BIOS Setup Program

About the Setup Program

This chapter explains how to use the BIOS Setup program. You can use the Setup program to change the computer's configuration information and boot-up sequence, etc.

The Setup program is stored in the computer's read only memory (ROM), so you can run the program at any time when you turn on or reset your computer. You need not insert a diskette or access the hard disk.

The Setup program lets you verify or change the followings:

- On the Setup menu, you can set up and modify some of the basic options of a system, such as time, date, diskette drives and hard disk drives.
- On the Utilitiy menu, you can perform system functions.
- On the Security menu, you can specify password that can be used to limit access to the system.
- On the Default menu, you can select a group of settings for all BIOS Setup options.

The configuration you define through the Setup program is stored in a special area of memory called CMOS RAM. The battery on the main board backs up this memory, so the memory is not erased when you turn off or reset the computer. Whenever you reboot the computer, it checks the settings, and if it discovers a difference between the information in the CMOS RAM and its actual hardware configuration, it prompts you to run the Setup program.

You may see a message such as the following:

110: KB/Interface Error
Press F1 to Resume

If this happens, just press F1 to run the Setup program and then correct the setting.

Entering the Setup Program

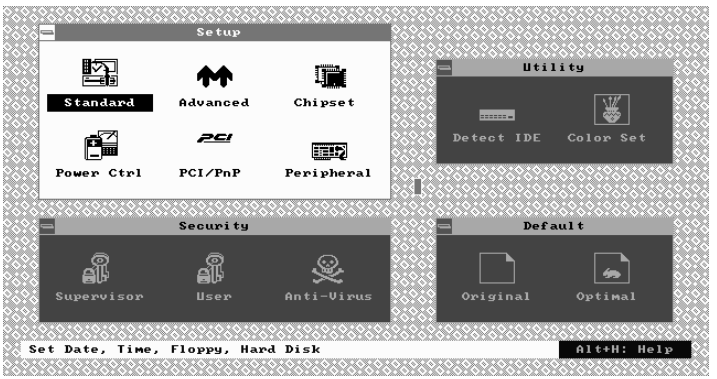
To enter the Setup program, turn the computer on and press <Del> when you see the the “emachines” logo.

As soon as you see this logo, hit the DEL key. If you do not press DEL key quickly, the computer starts loading the operating system and you will not be able to run the Setup program.

Note

For reference purposes, you should write down the current Setup settings. When you make changes to the settings, update this record.

When you enter the Setup program, you will see the Setup menu.



The Setup program is composed of four windows that contain several icons. An information line at the bottom of the menu displays simple explanations for each option.

You can use your keyboard or mouse to select the options.

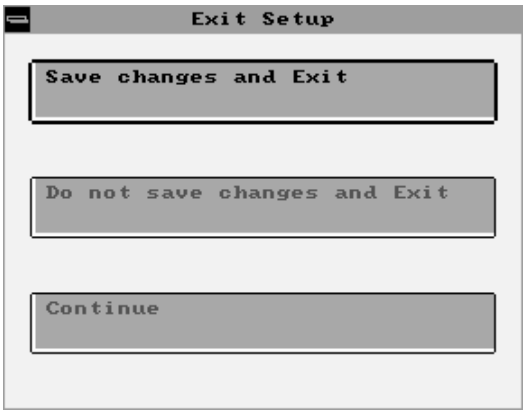
The mouse functions are click (change or select both global and current field) or double click (perform an operation in the selected field).

The following list provides an overview of function keys in the Setup program.

Setup Key	Description
Tab	Moves to the next window or field.
→,← , ↑ , ↓	Move to the next field to the right, left, above, or below.
Enter	Selects the current field.
+	Increases a value.
-	Decreases a value.
Esc	Closes the current operation and return to previous level.
PgUp	Returns to the previous page.
PgDn	Advances to the next page.
Home	Returns to the beginning of the text.
End	Advances to the end of the text.
Alt-H	Accesses a help window. It describes the keys available in Setup.
Alt-Spacebar	Exits System Setup.
Alphabetic keys	A to Z are used in the keyboard.
Numeric key	0 to 9 are used in either the numeric keys along the top of the keyboard or the numeric keypad.

Exiting the Setup Program

To exit the Setup program, press Alt and Spacebar keys simultaneously. If you press these keys, you can see the following window.



To save the settings and exit, select Save changes and Exit. The system reboots with your new settings.

If you want to exit the Setup program without saving your settings, select Do not save changes and Exit. The system reboots with your original settings.

To return to the Setup menu to make corrections, select Continue.

If you saved your changes or quitted without saving the settings, the Setup program resets the system and the computer performs its power on diagnostic tests.

If your computer detects a problem in your Setup configuration, you may see an error message and a prompt to run the Setup program when it is rebooting. Follow the instructions on the screen to run the Setup program and correct the problem.

Setup Menu

The Setup menu has 6 icons, each of which contains a submenu.

Standard Setup Menu

Standard Setup options are displayed by choosing the Standard icon from the BIOS Setup menu. All Standard Setup options are described below.

Pri Master/Pri Slave/Sec Master/Sec Slave

Choose these icons to configure the hard disk drive named in the option. When you click on an icon, the following parameters are listed: Type, LBA/Large Mode, Block Mode, 32Bit Mode, and PIO Mode.

Type

You can choose the appropriate hard disk and CD/DVD-ROM drives type for yours.

- **Type**: The number for a drive with certain identification parameters.
- **Cyl**: The number of cylinders in the disk drive.
- **HD**: The number of heads.
- **WP**: The size of a sector gets progressively smaller as the track diameter diminishes. Yet each sector must still hold 512 bytes. Write precompensation circuitry on the hard disk compensates for the physical difference in sector size by boosting the write current for sectors on inner tracks. This parameter is the track number where write precompensation begins.
- **Sec**: The number of sectors per track. MFM drives have 17 sectors per track. RLL drives have 26 sectors per track. ESDI drives have 34 sectors per track. SCSI and IDE drives have more sectors per track.
- **Size (MB)** : The formatted capacity of the drive. (Size = Number of heads x Number of cylinders x Number of sectors per track x 512 bytes per sector.)
- **User**: If you are configuring a drive with drive parameters that do not match drive types, you can select the User in the Type field. You must then enter the drive parameters on the screen that appears.

- **AUTO**: If the hard disk drive to be configured is an IDE drive, select the appropriate drive icon (Pri Master, Pri Slave, Sec Master, or Sec Slave). Select the IDE Detect icon to automatically detect all drive parameters.

  BIOS automatically detects the IDE drive parameters (including ATAPI CD/DVD-ROM drives and ATAPI removable drives) and displays them. Click on the OK button to accept these parameters, or you can set the parameters manually if you are absolutely certain that you know the correct IDE drive parameters.

- **ATAPI CDROM**: Select the appropriate drive icon (Pri Master, Pri Slave, Sec Master, or Sec Slave). Choose the Type parameter and select ATAPI CDROM. You can boot the computer from a CD/DVD-ROM drive. You can also choose Auto and let BIOS will automatically set the correct drive parameters.

- **ARMD (ATAPI Removable Media Device)**: If an ARMD drive is connected to the IDE connector, select ARMD for the drive. You can boot the computer from the ARMD drive.

LBA/Large Mode

To use the IDE drives with capacities greater than 528 MB, set this option to On. The settings are On and Off.

Block Mode

To use the IDE drives that use Block Mode, set this option to On. The settings are On and Off.

32Bit Mode

Set it to On to support IDE drives that permit 32-bit accesses. The settings are On and Off.

PIO Mode

This option selects the IDE Programmed I/O mode. PIO programming also works with ATAPI CD/DVD-ROM drives. The settings are Auto, 0, 1, 2, 3, and 4.

Choose Auto to allow BIOS to automatically find the PIO mode that the IDE drive being configured uses. If you select 0-4 you must make absolutely certain that you are selecting the PIO mode supported by the IDE drive being configured.

Date/Time

Select the Date/Time option to change the date or time. The current date and time are displayed. Enter new values through the displayed window.

Floppy Drive A, B

Choose the Floppy Drive A or B icon to specify the floppy drive type. The settings are Not Installed, 360 KB 5 ¼, 1.2 MB 5 ¼, 720 KB 3 ½, 1.44 MB 3 ½, and 2.88 MB 3 ½.

Advanced Setup Menu

Advanced Setup options are displayed by choosing the Advanced icon from the BIOS Setup main menu. All Advanced Setup options are described in this section.

Quick Boot

Set it to Enabled to instruct BIOS to boot quickly when the computer is powered on. The settings are:

- **Disabled**: BIOS test all system memory. BIOS waits up to 40 seconds for a READY signal from the IDE hard disk drive. BIOS waits for .5 seconds after sending a RESET signal to the IDE drive to allow the IDE drive time to get ready again. BIOS checks for a <Del> key press and runs Setup if the key has been pressed.

- **Enabled**: BIOS does not test system memory above 1 MB. BIOS does not wait up to 40 seconds for a READY signal from the IDE hard disk drive. If a READY signal is not received immediately from the IDE drive, BIOS does not configure that drive. BIOS does not wait for .5 seconds after sending a RESET signal to the IDE drive to allow the IDE drive time to get ready again.

1st/2nd/3rd Boot Device

Each menu allows you to select the first, second and third devices the computer checks when it looks for the operating system. The settings available for the 1st Boot Device option are Disabled, 1st/2nd/3rd/4th IDE-HDD, Floppy, ARMD-FDD, ARMD-HDD, ATAPI CDROM, SCSI, Network, and I2O. The settings available for 2nd Boot Device and 3rd Boot Device are Disabled, 1st/2nd/3rd/4th IDE-HDD, Floppy, ARMD-FDD, ARMD-HDD, and ATAPI CDROM.

BootUp Num-Lock

This option determines the beginning state of the Num Lock feature on your keyboard, when system is turned on or reset. The settings are On and Off.

PS/2 Mouse Support

If you enable this option, you can use a PS/2 mouse. The settings are Disabled and Enabled.

Primary Display

This option lets you define the type of adapter you are using for your primary display. The settings are Absent, VGA/EGA, CGA40X25, CGA80X25, and Mono.

Password Check

This option sets the type of password protection. The settings are Setup and Always. If you select Setup, every time you run the Setup program, the computer checks your password. Once you set password, you should enter your password whenever you run the Setup program.

If you select Always, every time you run the Setup program or turn on or reset the computer, it checks your password.

Boot to OS/2

If your system has above 64MB of main memory, set the option to Yes to allow the system to run OS/2 Warp version 3.0 properly. The settings are Yes and No.

Internal Cache

Set this option to Enabled to enable the L1 internal cache memory on the CPU. The settings are Enabled and Disabled.

External Cache

Set this option to Enabled to enable the L2 external cache memory. The settings are Disabled and Enabled.

System BIOS Cacheable

When set to Enabled, the contents of the F0000h system memory segment can be read from or written to cache memory. The contents of this memory segment are always copied from the BIOS ROM to system RAM for faster execution. The settings are Enabled and Disabled.

C000, 32K Shadow

This option controls the location of the contents of video ROM. The settings are Enabled, Cached, and Disabled.

- **Enabled**: The contents of the video ROM area (C0000h - C7FFFh) are written to the corresponding address in RAM.

- **Cached**: The contents of the video ROM area (C0000h - C7FFFh) are written to the corresponding RAM address and may be read from or written to cache memory.

- **Disabled**: The video ROM is not copied to RAM. The contents of the video ROM cannot be read from or written to cache memory.

C800 / CC00 / D000 / D400 / D800 / DC00, 16K Shadow

These options allow you to shadow the contents of the adapter ROM listed on the screen to the system's RAM. The settings are Disabled and Enabled.

Chipset Setup Menu

If you select the Chipset icon from the Setup main menu, the Chipset Setup menu is displayed.

Allocate IRQ to USB

Set this option to Yes to allocate the IRQ to USB devices. The settings are Yes and No.

USB KB/Mouse Legacy Support

Set this option to Enabled to enable USB support for legacy keyboards and mice. The settings are Enabled or Disabled.

Memory Hole

This field enabled a memory hole in DRAM space. Host cycles matching an enabled hole are passed on to PCI. PCI cycles matching an enabled hole will be ignored. The settings are Disabled, 512~640KB, and 15MB~16MB.

AGP Aperture Size

This option specifies the amount of system memory that can be used by the Accelerated Graphics Port (AGP). The settings are 4 MB, 8 MB, 16 MB, 32 MB, 64 MB, 128 MB, and 256 MB.

Power Control Setup Menu

If you select the Power Ctrl icon from the Setup main menu, the Power Control Setup menu is displayed.

ACPI Aware O/S

Set this option to Yes if the operating system you are running under complies with the ACPI (Advanced Configuration and Power Interface) specification. The settings are Yes and No.

Power Management / APM

Set the option to Enabled to enable the power management and APM (Advanced Power Management) features. If you set Disabled for the option, you will not see any options execpt ACPI Aware O/S, Remote Power On LAN, and Remote Power On Modem in the Power Control Setup menu. The settings are Disabled and Enabled.

Power Button Function

The option allows pressing power button on the computer to enter suspend mode as well as on/off feature of the power button. It takes effect after finishing power-on self-test. The settings are Suspend and On/Off.

After finishing power-on self-test, the methods for turning off the system depend on the setting for the option.

When the option is set to Suspend, you should press the power button for more than 4 seconds to turn off the system after finishing power-on self-test. When the option is set to On/Off, normally pressing the power button after power-on self-test makes the system turned off. When the option is set to Suspend and the system is on, if you press the power button for less than 4 seconds, the computer will go into suspend mode.

If the Power Management / APM option is set to Disabled, the Power Button Function option can be used only as normal On/Off feature.

Note

When you turn off the system in suspend mode, we recommend you turn off the system after resuming the system.

AC Power default status

This option specifies how the computer responds to a power failure or when you connect the AC power cable to your computer. If you set it to Off, the computer keeps power off until power button pressed. If you set it to On the computer restores power. The settings are Off and On.

Remote Power On LAN

If your computer has a PCI add-in network interface card (NIC) with remote wakeup capabilities, this option specifies whether or not the computer responds to a LAN wakeup event through a network when the power is off. The settings are Disabled and Enabled.

Remote Power On Modem

This option specifies whether or not the computer responds to an incoming call on an installed modem when the power is off. The settings are Disabled and Enabled.

Suspend Time Out

The option specifies the length of the period of system inactivity for going into suspend mode. When the specified period expires, the computer enters suspend mode, beeping twice. The settings are Disabled, 4Min, 8Min, 12Min, 20Min, 40Min, and 60Min.

Parallel port

This option specifies if the computer is to monitor parallel port activity for power conservation purpose. When this option is set to Monitor and there is no parallel port activity for the length of time specified in the Suspend Time Out option, the computer enters a power saving state. The settings are Ignore and Monitor.

Floppy disk

This option specifies if the computer is to monitor floppy disk activity for power conservation purpose. When this option is set to Monitor and there is no floppy disk activity for the length of time specified in the Suspend Time Out option, the computer enters a power saving state. The settings are Ignore and Monitor.

Primary master IDE, Primary slave IDE, Secondary master IDE, and Secondary slave IDE

This option specifies if the computer is to monitor the activity of each of the primary master, primary slave, secondary master, and secondary slave IDE drives for power conservation purpose. When this option is set to Monitor and there is no activity of each of the primary master, primary slave, secondary master, and secondary slave IDE drives for the length of time specified in the Suspend Time Out option, the computer enters a power saving state. The settings are Ignore and Monitor.

PCI/PnP Setup Menu

If you select the PCI/PnP icon from the Setup main menu, the PCI/PnP Setup menu is displayed.

Plug and Play Aware O/S

The option enables the computer to boot with an operating system capable of managing Plug and Play add-in cards. Set it to Yes if the operating system (such as Windows 98) installed in the computer follows the Plug and Play specification. BIOS only detects and enables PnP ISA adapter cards that are required for system boot. The Windows 98 operating system detects and enables all other PnP-aware adapter cards. Windows 98 is PnP-aware. Set the option to No if the operating system (such as DOS, OS/2, Windows 3.X) does not use PnP. You must set this option correctly, or PnP-aware adapter cards installed in the computer will not be configured properly. The settings are No and Yes.

Initial Display Select

This option specifies the primary display adapter of your system. If you install an additional display adapter in your mainboard for using multiple monitors, you must specify the primary display adapter. When you add a PCI display card to your system with a built-in AGP display adapter, the PCI card becomes the primary adapter. To use the built-in AGP adapter as primary, set this option to Onboard AGP. The settings are PCI slot and Onboard AGP.

PCI Latency Timer (PCI Clocks)

This option sets the length of time (measured in the number of PCI clock cycles) that a device on the PCI bus can hold the bus when another device has requested the bus. The clock choices include every 32nd value between 32 and 248 clocks. The settings are 32, 64, 96, 128, 160, 192, 224, and 248.

PCI VGA Palette Snoop

The option controls the ability of a primary PCI graphics controller to share a common palette with an ISA add-in video card. The settings are Disabled and Enabled.

Allocate IRQ to PCI VGA

Set this option to Yes to allocate an IRQ to a VGA adapter card that uses the PCI local bus. The settings are Auto and No.

DMA Channel 0, 1, 3, 5, 6, and 7

These options allow you to reserve DMAs for legacy ISA adapter cards. The settings are PnP and ISA.

IRQ 3, 4, 5, 7, 9, 10, 11, 14, and 15

These options set the status of the IRQ. If these interrupts are available for use by a PCI/PnP add-in card, the interrupts are assigned for the computer to use. If the computer contains an ISA agent that uses one of these interrupts, select ISA for that interrupt. The settings are PCI/PnP and ISA.

Reserved Memory Size

This option specifies the size of the memory area reserved for legacy ISA adapter cards. The settings are Disabled, 16K, 32K, and 64K.

Reserved Memory Address

This option specifies the beginning address (in hex) of the reserved memory area. The specified ROM memory area is reserved for use by legacy ISA adapter cards. The settings are C0000, C4000, C8000, CC000, D0000, D4000, D8000, and DC000.

Peripheral Setup Menu

The Peripheral Setup menu is displayed if you select the Peripheral icon from the Setup main menu.

OnBoard SOUND

Set this option to Enabled to enable the onboard audio subsystem in your system. The settings are Enabled and Disabled.

OnBoard FDC

Set this option to Enabled to enable the built-in diskette drive controller. If you install another FDC card, disable this option. The settings are Auto, Disabled, and Enabled.

OnBoard Serial Port 1

This option specifies the base I/O port addresses of built-in serial port 1. The settings are Auto, Disabled, 3F8h, 2F8h, 3E8h, and 2E8h.

OnBoard Parallel Port

It specifies the base I/O port address of the built-in parallel port. The settings are Auto, Disabled, 378, 278, and 3BC.

Parallel Port Mode

It specifies the parallel port mode. Normal, ECP and EPP are bi-directional data transfer schemes that adhere to the IEEE P1284 specifications. The settings are:

- **Normal**: Use this option to operate the parallel port in Standard Parallel Port (SPP) mode and bi-directional mode.
- **EPP**: The parallel port can be used with devices that adhere to the Enhanced Parallel Port (EPP) specification. EPP uses the existing parallel port signals to provide asymmetric bi-directional data transfer driven by the host device.
- **ECP**: The parallel port can be used with devices that adhere to the Extended Capabilities Port (ECP) specification. ECP uses the DMA protocol to achieve transfer rates of approximately 2.5 Mbs. ECP provides symmetric bi-directional communications.

EPP Version

This option specifies the EPP version. The settings are 1.9 and 1.7.

Parallel Port IRQ

It is only available when the On Board Parallel Port option is not set to Auto. The settings are 5 and 7.

Parallel Port DMA Channel

It is only available if the setting for the Parallel Port Mode option is ECP. The settings are 0, 1, and 3.

OnBoard IDE

The option allows you to set the built-in IDE controller you want to use. The settings are Disabled, Primary, Secondary, and Both.

Utility Menu

There are 2 icons in the Utility menu.

Detect IDE

If an IDE-type hard disk drive, a CD/DVD-ROM drive, or a ATAPI removable drive is connected to the primary or secondary IDE controller, this option allows for automatic detection of the hard disk drive or CD/DVD-ROM drive type. Once SETUP detects the type of the hard disk or CD/DVD-ROM drive installed, it will display the relative information.

After SETUP detects all IDE drives, the hard disk drive type will be forced to be User and the CD/DVD-ROM drive type will be forced to be CDROM.

Color Set

This option allows you to change the color of the System Setup screen. The settings are Sky, Army, Pastel, and LCD.

Security Menu

There are three icons in the Security menu.

Supervisor / User

These two options make it possible to restrict access to the Setup program and to restrict who can boot the computer by enabling you to set passwords for two different access modes: Supervisor mode and User mode.

A Supervisor password and a User password can be set for the Setup program and for booting the computer.

Supervisor mode has full access to all the Setup options whereas User mode has limited access to the options. Setting separate Supervisor and User passwords enables a system supervisor to restrict who can change critical Setup values.

When you run the Setup program by entering your User password, you can change the three items only: Advanced, User, and Color Set.

If you set both the Supervisor and User passwords, you must set the Supervisor password first. Once both are set, you can enter either the Supervisor password or the User password to access the Setup or the computer.

The system can be configured so that all users can enter a password every time you turn on or reset the system, or run the Setup program, using Supervisor password only or both passwords.

The table shows the effects of setting the Supervisor and User passwords.

Supervisor and User password functions

Password set	Password during boot	Password to enter the Setup Program	Supervisor mode	User mode
Neither	None	None	Can change all options	Can change all options
Supervisor and User set	Supervisor or User	Supervisor or User	Can change all options	Can change a limited number of options
Supervisor only	Supervisor	Supervisor	Can change all options	-

Setting a Password

Follow these steps to set your password:

1. When you see “Enter New Password” in the Supervisor or User window, type the letter you want to use using the keyboard or click it using the mouse. You can type up to six characters using the keys listed in the window. The screen displays an asterisk for each character you type. After typing the password, press Enter.

2. When you see “Confirm New Password”, type your password again and press Enter. If the password you type is different from your password, the screen displays the message “Enter New Password”. As you see the following message, press Enter.

   Supervisor Password Installed
   or
   User Password Installed

3. When you exit the Setup program, save your new settings. When you turn on or reset your computer or run Setup (depending on the setting in Password Check of the Advanced Setup menu), you will see the password prompt.

Note

Be sure to remember the password you enter or write it down. If you cannot remember it, you will not be able to access the computer the next time you turn it on or run SETUP. However, if you forgot your password, there is a way to use your system again. See “Disabling a Forgotten Password” for more information.

Deleting or Changing a Password

If you want to delete the current password, follow these steps:

1. Select the Supervisor or User icon from the Security menu.
2. When you see “Enter Current Password”, type the current password and press Enter. If you select the User icon, the message does not appear.
3. When you see “Enter New Password”, just press Enter to delete your current password.
4. When you see “Confirm New Password”, press Enter again.
5. When you see the following message, press Enter.

   Both Passwords Uninstalled
   or
   User Password Uninstalled

   To change the current password, type your new password before pressing Enter on steps 3 and 4.

Disabling a Forgotten Password

If you forget your current password and cannot use your computer or run the Setup, follow these steps:

1. Turn off the computer and disable the password function by setting the jumper J6 to 2-3.
2. Turn on the computer. You will not see the prompt that asks you to enter your password when you turn on the computer or run the Setup program.
3. If you want to set a new password, turn off the computer and enable the password function by setting the jumper J6 to 1-2.
4. Turn on the computer. As soon as the logo appears on the screen, press the Del key.

   If you set a new password, the prompt that asks you to enter the password will appear on the screen when you turn on or reset the computer or run the Setup program.

   If you did not set a new password, you would immediately use your system.

   If you attempt to set a new password after you set the jumper J6 to 2-3 to disable your password, the password will not be saved to CMOS RAM.

Anti-Virus

This option allows the user to protect the hard disk driver or diskette's boot sector from unnecessary writing. The available settings are Enabled and Disabled.

Setting this option to Disabled makes writing on the boot sector possible.

If you select Enabled for this option, when you use the FORMAT, DISKCOPY, or SYS command or any program that tries to write on the boot sector, you will see the following warning message.

```
Boot Sector Write!!!
Possible VIRUS: Continue (Y/N)? _
```

At this point if you want to complete the running of the program regardless of the message above, press Y.

If you see the message above in spite of having not run programs described above, viruses may try to write on the boot sector. Select N to prevent the virus from writing on the boot sector.

Notice that if you want to install an operating system, set this option to Disabled.

Default Menu

The icons in this section permit you to select a group of settings for all Setup options. Not only can you use these icons to quickly set system configuration parameters, you can choose a group of settings that have a better chance of working when the system is having configuration-related problems.

Original

Choose the Original icon to return to the system configuration values present in Setup when you first began this Setup session.

Optimal

You can load the optimal default settings for the Setup by selecting the Optimal icon. The Optimal default settings are best-case values that should optimize system performance. If NVRAM is corrupted, the Optimal settings are loaded automatically.

Chapter 5
Inside Your Computer

This chapter tells you how to remove and replace the system cover and connect the internal cables, and familiarizes you with the internal components you might handle if you install hardware options.

You will use the information in this chapter every time you install a hardware option inside your computer.

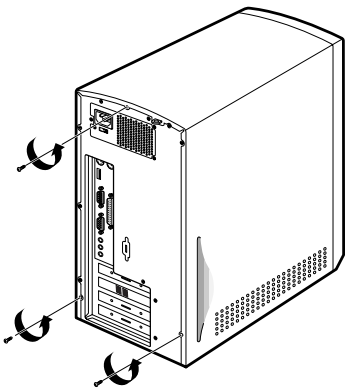
Removing the Cover

You need to remove the cover of your system to access its internal components.

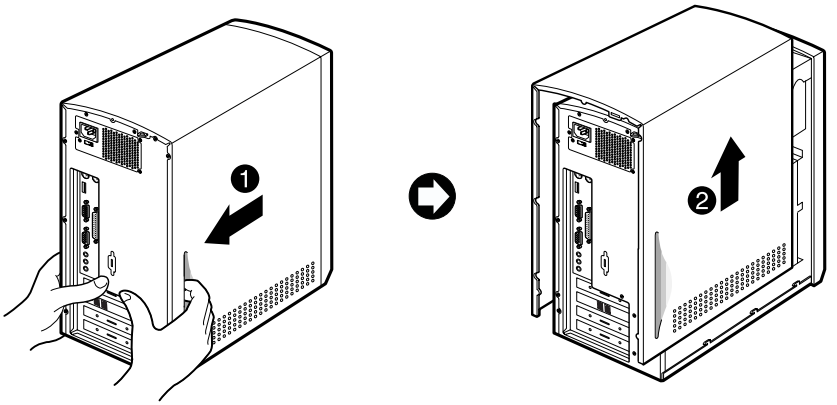
To remove the cover, follow these steps:

1. Turn off the computer and peripheral devices including the monitor and printer.
2. First of all, disconnect the power cable from the electrical outlet and from the back panel. Then disconnect any cables connected to the computer.

3 To open the system cover, remove the three screws on the back panel of your computer.



4 Slide the cover toward the rear to free it from the system and lift it off until can be removed completely. Set the cover aside.



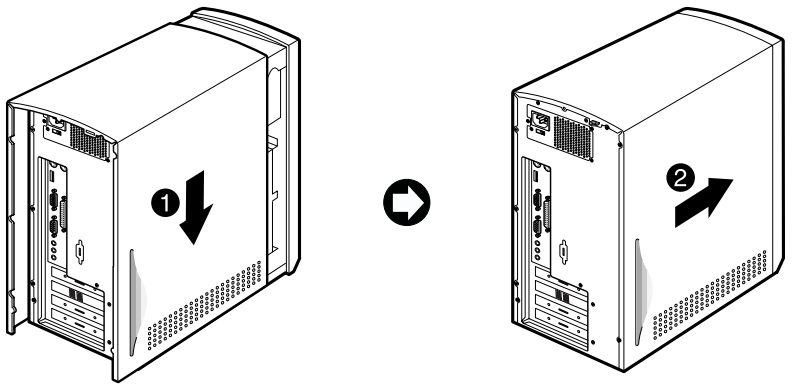
Note

Be sure to ground yourself by touching your system every time you remove the cover. If you are not properly grounded, you could generate an electric shock when you touch a component.

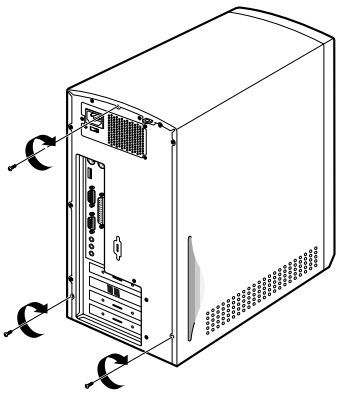
Replacing the Cover

Follow these steps to replace the cover:

1. Hold the cover with your hands and gently put it down to the chassis on the rear position (about 3cm) from the front bezel, then push it to the front.



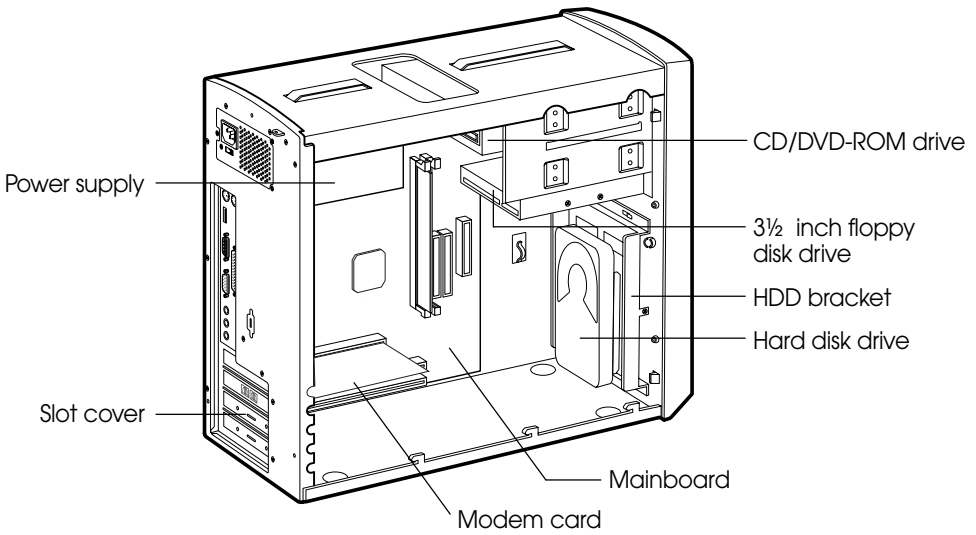
2. Tighten the cover to the chassis with the screws you removed.



3. Reconnect the monitor, keyboard, mouse, and any other peripheral device's cable connectors to your system.

Internal Components

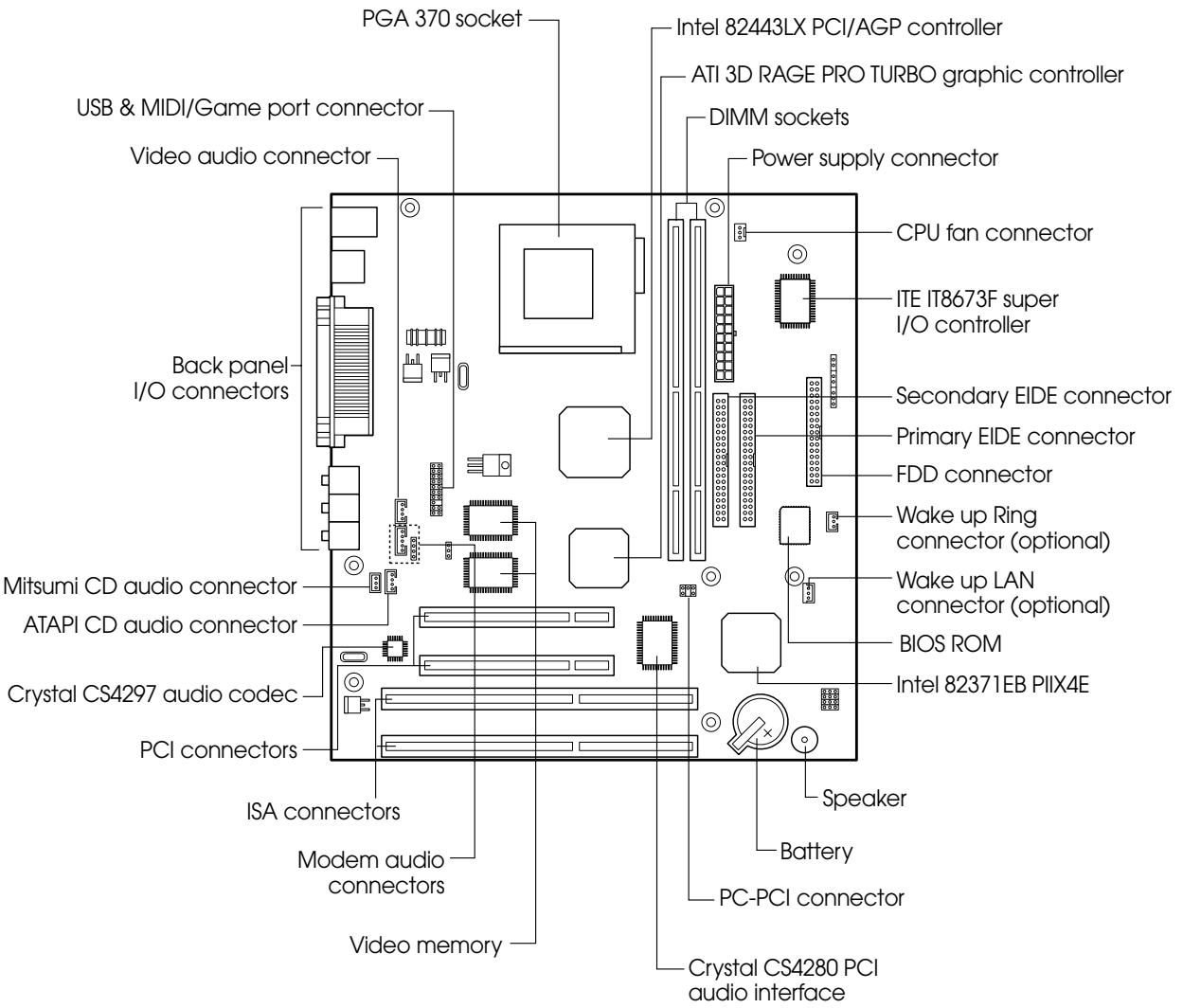
The following illustration shows the components inside your computer.



Your computer has three (one 3.5-inch and two 5.25-inch) horizontal bays in the drive cage and the HDD bracket for one hard disk drive.

Mainboard Overview

The illustration below shows the locations of the mainboard components in your computer.



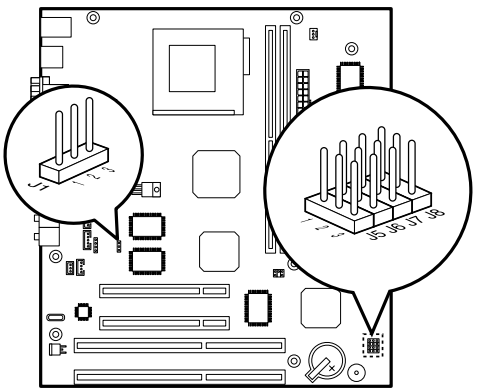
Changing the Jumpers

The jumpers are small electrical connectors that control various circuits or functions in your system.

Jumpers are small blocks on a circuit board with two or more pins emerging from them. To change a jumper setting, pull the plug off its pins and carefully fit it down onto the pins indicated.

The jumpers settings in your computer are preset at the factory; however, you can alter the functions by changing the standard settings:

- Enable or disable the password function.
- Clear the CMOS settings.
- Enable or disable the FDD write protect.
- Enable or disable the built-in display function.



Note

The jumpers settings and their functions are inscribed on the label attached in your system chassis. If you want to see the label, you need to remove the cover of your system.

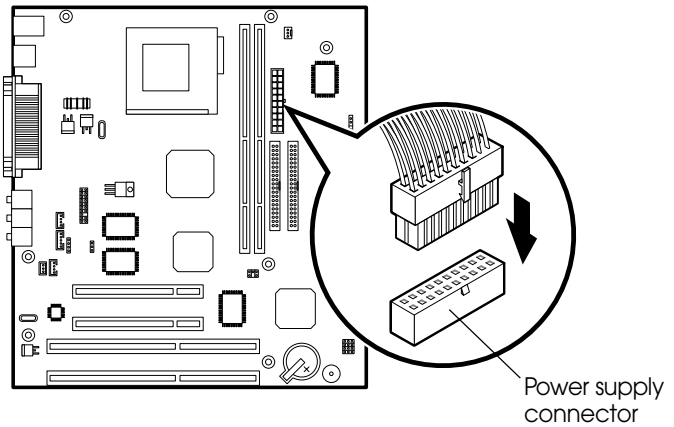
Caution

Do not change the jumpers with the power on. Always turn off the computer and unplug the power cord from the computer before changing the jumpers.

Connecting a Power Supply Connector

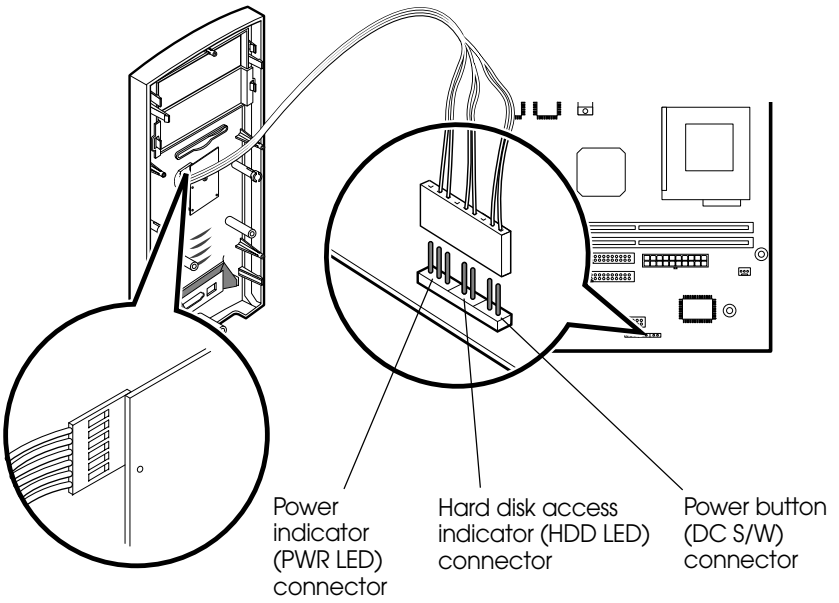
The power supply converts AC power from a wall outlet to the DC voltages required by mainboard and devices in your system. The power supply has a large mainboard connector and several internal device (hard disk, CD/DVD-ROM, and floppy disk drive, etc.) connectors.

The cable connector of power supply is connected to the power connector on the mainboard.



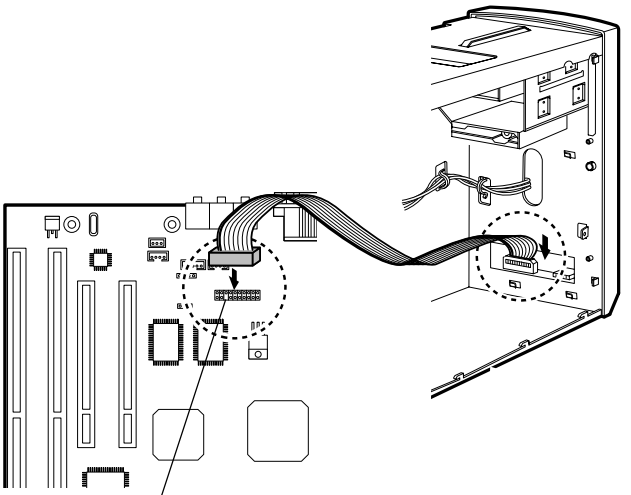
Connecting the Front Panel Connector Cable

The front panel connector cable is connected to connectors on the mainboard and front panel of your computer.



Connecting the USB and MIDI/Game Port connector Cable

The USB and MIDI/Game port connector cable is connected to connectors on the mainboard and sub-board in the front side of your computer.



Chapter 6

Installing and Removing Board Options and Drives

This chapter describes how to install and remove optional drives and board options in your computer. You can use these instructions to install and remove a variety of devices and board options. Although your board options and drives may look a bit different from the ones illustrated here, you can install and remove it the same way. See Chapter 5 for removing and replacing the cover.

Caution

Turn off the computer. Then disconnect the computer from its power source and from any telecommunications links, networks, or modems before performing any of the procedures described in this chapter.

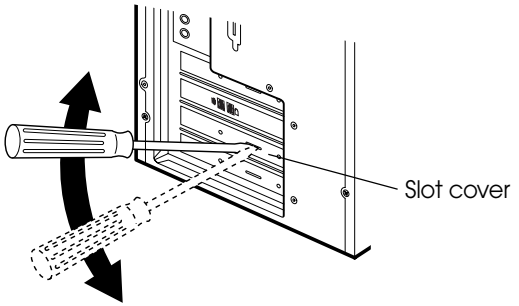
Installing an Expansion Card

This section explains how to install an expansion card in your computer. Your computer has two 32-bit PCI and two 16-bit ISA bus connectors. You can use a total of three expansion slot as one PCI connector and one ISA connector share a single expansion slot.

Follow these steps to install an expansion card:

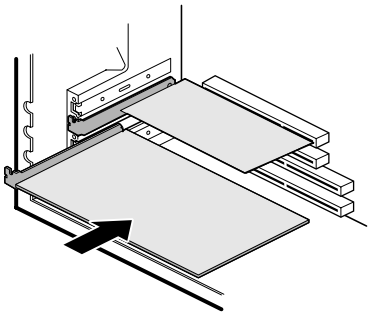
1. Remove the system cover according to the instructions in "Removing the Cover" in Chapter 5.
2. Insert a flat blade screwdriver into a hole of the slot cover you wish to remove.

3 Move the screwdriver up and down until the slot cover breaks away from the chassis. Then lift the slot cover out of the chassis.

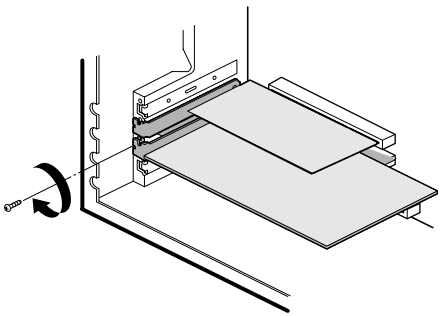


4 Adjust any switches or jumpers on the expansion card, if necessary. When you handle the card, be careful not to touch any components on the circuit board or the gold-edged connector.

5 Hold the card along the top corners and guide it into the connector. When the expansion card connector reaches the connector on the mianboard, push the card in firmly to insert it fully.



6 Secure the end of the card to the computer with retaining screw.



7 Connect any cables that should be attached to the card.

8 Replace the system cover according to the instructions in “Replacing the Cover” in Chapter 5.

Installing and Removing Memory Modules

Your computer may have come with one memory module inserted into the mainboard.
You can add a DIMM with the capacity of 16MB, 32MB, 64MB, or 128MB. You can increase the amount of memory in your computer up to 256MB.

Each DIMM socket supports the following memory features:

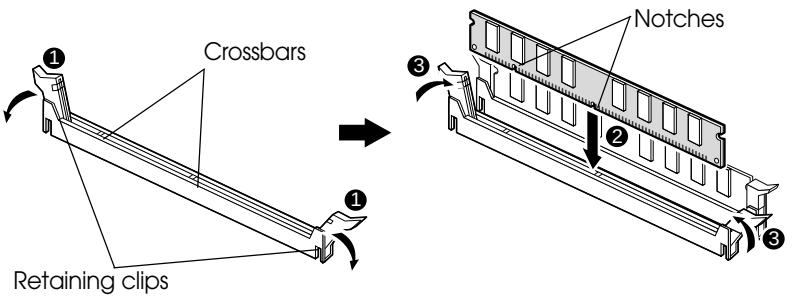
- Unbuffered 168-pin 3.3 V DIMMs with gold-plated contacts
- SDRAM
- Single or double-sided DIMMs in the following sizes:

DIMM size	Non-ECC memory
16MB	2 Mbit * 64bit
32MB	4 Mbit * 64bit
64MB	8 Mbit * 64bit
128MB	16 Mbit * 64bit

Installing a Memory Module

Follow these steps to install DIMMs:

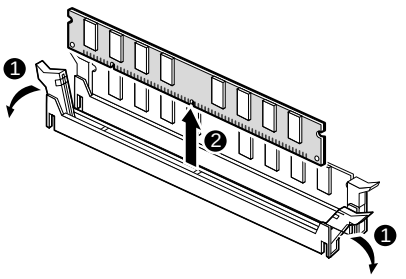
1. Remove the cover according to the instructions in “Removing the Cover” in Chapter 5.
2. Install the DIMM in the socket marked with DIMM2, if the DIMM is installed in the DIMM1 socket. Release the plastic retaining clips at each end of the socket by pressing the clips outward until they snap open.
3. Orient a DIMM to the socket so the two notches in the DIMM connector are aligned with the crossbars in the socket.
4. Press the DIMM straight into the socket until the retaining clips snap into place around the ends of the DIMM.



5. Replace the system cover according to the instructions in “Replacing the Cover” in Chapter 5.

Removing a Memory Module

To remove memory modules, press the retaining clips outward simultaneously until the DIMM disengages from the socket and then carefully remove the DIMM from the socket.



Installing and Removing the Processor

The processor that you install must be compatible with PGA370 socket.

Warning

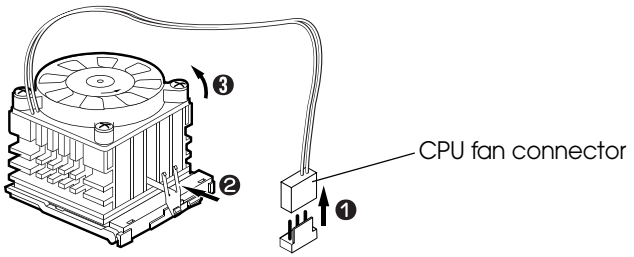
A processor you plan to install should have a cooling fan containing a heat sink attached to it to prevent overheating. If there is no fan circulating air on the processor and heat sinks, the processor and heat sinks may overheat and cause damage to both the processor and mainboard.

Follow these steps to replace the existing processor with a new one:

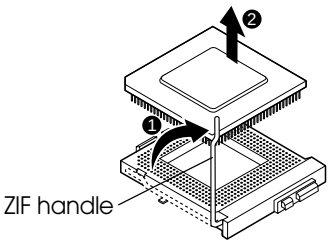
Note

According to processor type, your actual process may be slightly different from one described below.

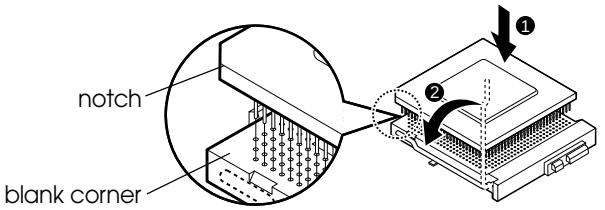
1. Remove the system cover as described in "Removing the Cover" in Chapter 5.
2. See the illustration in "Mainboard Overview" in Chapter 5 for the location of the processor socket.
3. If there is a processor chip on the socket, you must remove it from the socket. When you remove the processor, first unplug the connector from the CPU fan connector and remove the heat sink by releasing both tabs on the heat sink that secure the heat sink to the socket.



4 Pull the ZIF handle sideways away from the socket then upward to 90-degree angles and carefully pull the chip straight up from the socket.



5 Locate the new processor you are installing over the socket so that the notched corner on the processor (pin 1) can be aligned with the blank corner on the socket. Then gently push the processor straight into the socket until its pins are completely inserted into the holes of the socket.

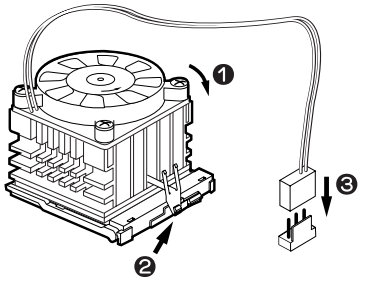


Note

If you install the processor chip in the wrong orientation, you may burn the chip and void your warranty.

6 Press the ZIF handle back to close it.

7 Attach the heat sink to the processor socket and then connect a fan connector cable from the CPU fan to the CPU fan connector.



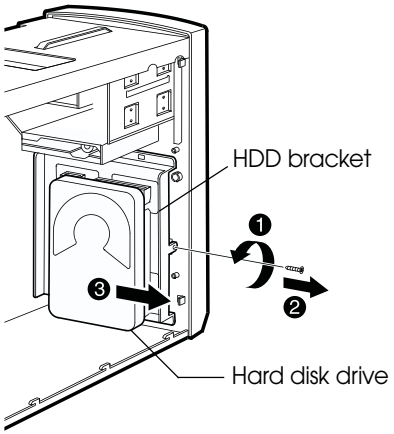
8 Replace the system cover according to the instructions in “Replacing the Cover” in Chapter 5.

Replacing a Hard Disk Drive

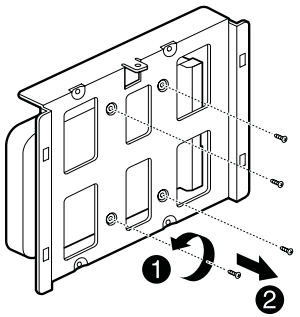
Your hard disk drive is installed in the HDD bracket attached on the chassis. You can install one hard disk drive in the HDD bracket.

Follow these steps to replace the hard disk drive:

1. Remove the system cover according to the instructions in “Removing the Cover” in Chapter 5.
2. Detach all cables from the hard disk drive in the HDD bracket.
3. Remove the screw securing the HDD bracket to the computer. And then slide the HDD bracket, as shown below.

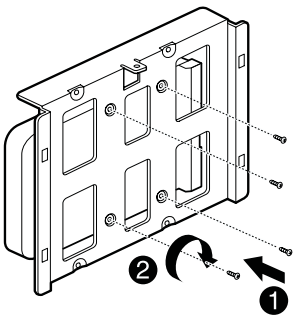


4. Remove the screws from the HDD bracket.

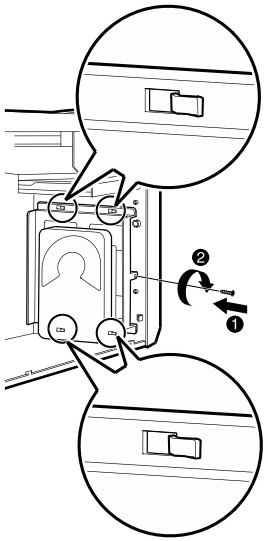


5 Set the jumper of the new hard disk drive. When you install only hard disk drive, you should set the jumper to master drive.

6 Using the screws, secure the hard disk drive to the HDD bracket.



7 Slide the drive until the four slots in the HDD bracket are inserted into the four tabs of the chassis and then secure the HDD brakcet with the retaining screw, as shown below.



8 Connect the free power and hard disk drive cables to the hard disk drive.

9 If you removed the hard disk drive cable from the mainboard, replace it.

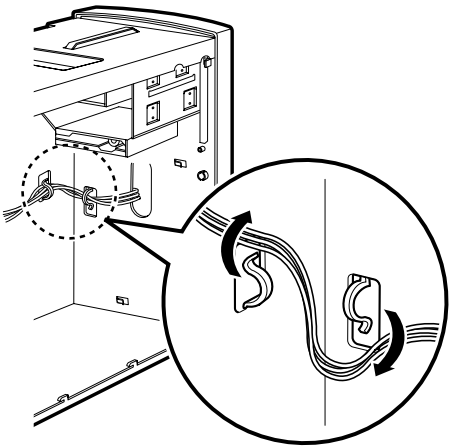
10 Replace the system cover according to the instructions in “Replacing the Cover” in Chapter 5.

Installing the 5.25-inch Device in the Peripheral Bay

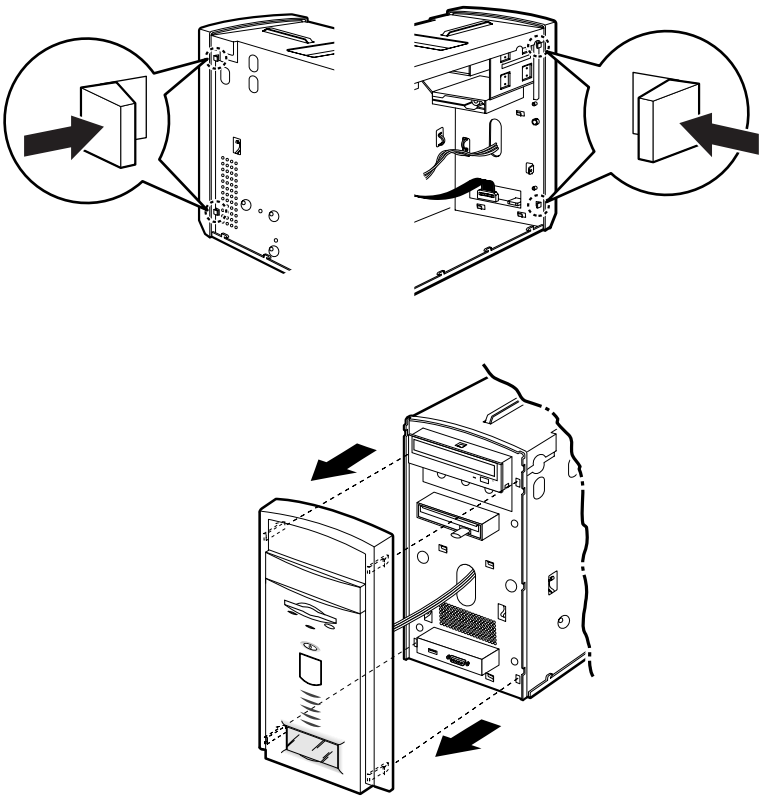
Your system has two 5.25-inch horizontal peripheral bays. If only one device (e.g., CD/DVD-ROM drive) is installed in the system's 5.25-inch peripheral bay, you can add an optional device such as a CD/DVD-ROM drive, hard disk drive, LS-120 drive, or ZIP drive in the empty peripheral bay.

To install an optional device in the bay, follow these steps:

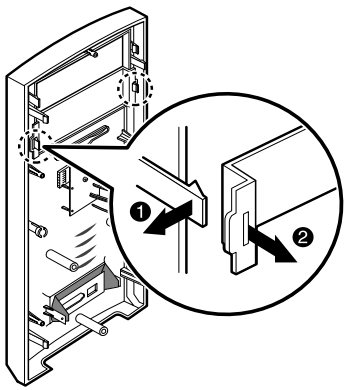
1. Remove the cover according to the instructions in "Removing the Cover" in Chapter 5.
2. Remove the HDD bracket from the system chassis. For more information, see "Replacing a Hard Disk Drive" in this chapter.
3. Release the front panel connector cable from the chassis.



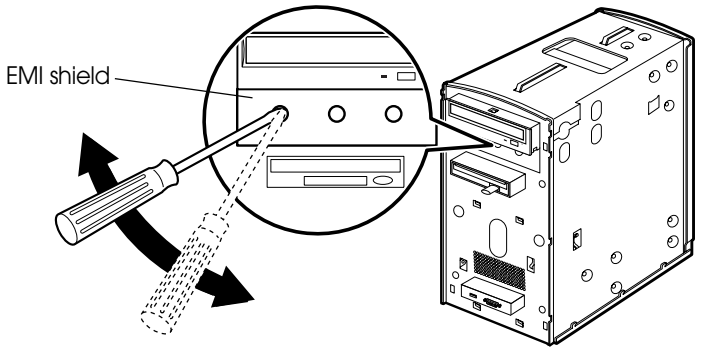
4 Remove the front panel from the chassis by pressing the four tabs.



5 Remove the faceplate cover from the front panel. Pull out the faceplate, pressing outward each tab on both ends of the front panel using your finger.



6 If there is an EMI shield that covers the 5.25-inch drive bay you want to use, remove it from the chassis using a tool such as a screwdriver.

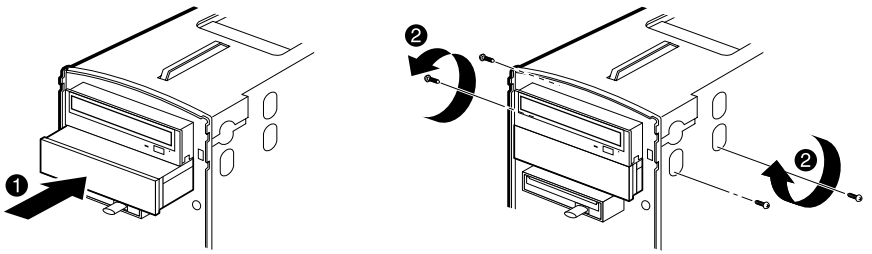


7 Make sure jumpers of optional drive you want to install are set correctly.

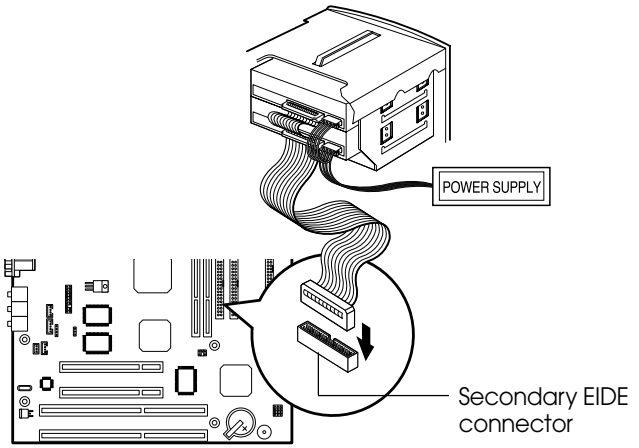
Note

Like a hard disk drive, most optional devices have jumpers that must be set for the drive to work properly with your computer, too.
If you connect two drives to one E-IDE interface cable, you must change the jumper settings on each drive to indicate which drive is the master drive and which is the slave drive.
If you are to connect your optional drive to the secondary E-IDE drive connector and it is the first drive you are connecting to it, set its jumpers to the master mode. If it is the second drive, set its jumper to the slave mode.

8 Slide the device into the bay and secure it to the computer case with four screws.



9 Connect the power and interface cables to the device installed.



10 If there is a audio cable that came with your device, connect one end of the cable to the device and connect the other end to the CD/DVD-ROM audio connector (CN43 for an ATAPI CD/DVD-ROM drive or CN44 for a Mitsumi CD/DVD-ROM drive) on the mainboard.

11 To reassemble the front panel to the system, press the front panel toward the system until the tabs on the front panel click into place.

12 Hook the front panel connector cable and replace the HDD bracket to the chassis.

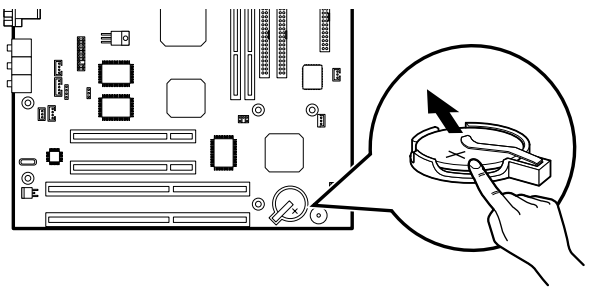
13 Replace the system cover according to the instructions in “Replacing the Cover” in Chapter 5.

Replacing the Battery

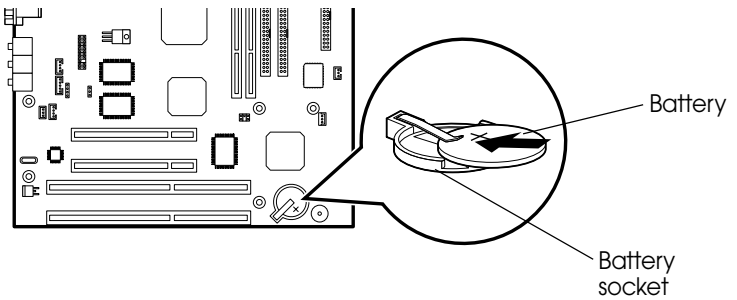
The 3 V, coin-cell CR2032-type battery on the mainboard provides power to the real-time clock and CMOS RAM. It has an estimated lifetime of three years if the computer is turned off.

To replace the battery, follow these steps:

1. Enter the Setup program and make a printed copy of the Setup screens.
2. Turn off all peripheral devices connected to the computer and then turn off the computer.
3. Remove the system cover.
4. Pry the battery out of its socket with your fingers to remove the battery.



5. Insert the new battery with the "+" side facing up into the battery socket.



6 Replace the system cover.

7 Turn on your system, run the Setup program, and set the date and time again. Restore any system configuration information that was lost while replacing the battery according to the copy made in step 1.

After Installing Options

After you install or remove drives, if necessary, be sure to run Setup program to update the configuration of your system. See Chapter 4 for detail information.

If you installed a hard disk drive on which you want to install an operating system, install the operating system, drivers, and application programs on the hard disk drive using the Restore CD after running FDISK. Follow the instructions in Chapter 8.

If you installed a hard disk drive on which you want to install an operating system, install the operating system on the hard disk drive. See “Using the Restore CD” in Chapter 8.

If you installed new optional equipment and Windows 98 is already installed in your system, you need to have Windows 98 detect it. See Windows 98 manual and the manual that came with your optional equipment for detail information.

Chapter 7
Application Programs

ATI Player

Note

The ATI Player is available only on the CD-ROM drive model.

The ATI Player is the software MPEG player designed to work with your display adapter. The ATI Player provides full-motion, full-screen software MPEG video playback with excellent color quality.

To run the ATI Player program, click the Start button, point to Programs, ATI Multimedia, and then click ATI Player.

Note

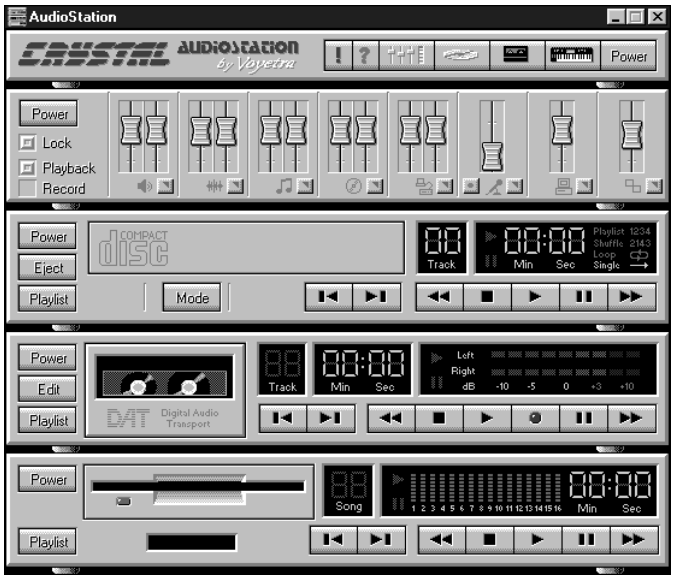
For more information, refer to on-line help. To see on-line help, click the icon on the ATI Player screen.

AudioStation

AudioStation is a component audio system that can play or record audio CDs, digital audio files (WAV or VOC), or MIDI files (MID, RMI or ORC). This consists of Audio Mixer, CD Player, Digital Audio Player, and MIDI Player.

Audio Mixer lets you adjust the volumes of the various audio components and set recording levels for digital audio. You can play audio CDs with the CD Player. You can play digital audio (WAV) files with the Digital Audio Player and edit digital audio files using WinDAT displayed by pressing the Edit button. With the MIDI Player, you can play MIDI files. You can audition CD, WAV and MIDI files and create custom playlists.

To run AudioStation program, click the Start button, point to Programs, Voyetra, and then click AudioStation.



Note

For more information, refer to on-line help. To see on-line help, click the ? icon on the AudioStation screen.

DVDExpress

Note

The DVDExpress is available only on the DVD-ROM drive model.

Digital Versatile Disc (DVD) is a high-density storage device.

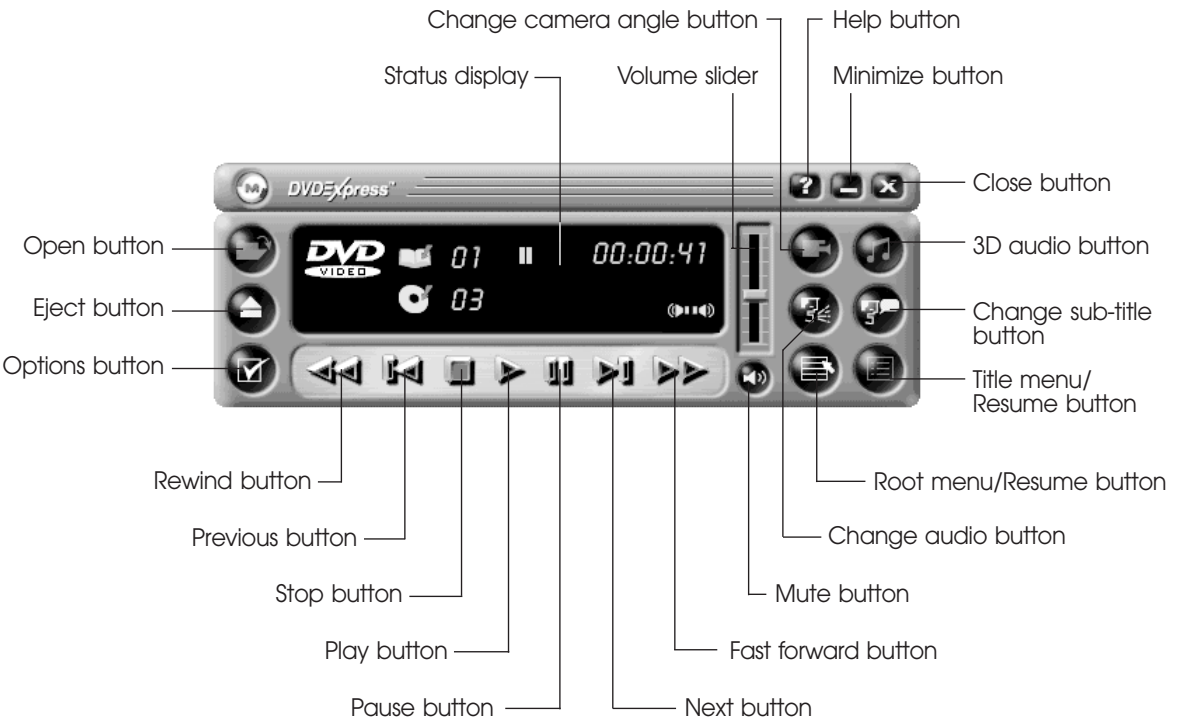
A standard DVD can hold 4.7 gigabytes of data - a seven times the data capacity of a current CD. Dual-layer DVDs can hold more than twelve times the information of a CD on a single side. So you can enjoy higher-resolution pictures, more channels of digital sound, richer graphics, and far more multimedia.

Playing the DVDExpress

If your DVD disc is auto-run, the DVDExpress will automatically start when you insert the disc in the DVD-ROM drive.

For the DVD disc does not automatically start when you insert the disc, play the DVDExpress as follows:

- Double-click the DVDExpress icon on the desktop and press the play button on the DVDExpress.
- Click the Start button, point to Programs, point to Mediamatics DVDExpress, and then click Mediamatics DVD Player. And press the play button on the DVDExpress.



Notes

- *For more information, refer to on-line help. To see on-line help, click the ? button on the DVDExpress screen.*
- *Your DVDExpress application is already set to Region 1, so you can play the DVD disc that contains no region code or a Region 1 code.*

< Region Code for Area >

Region No.	Area
Region 1	The United States, U.S. Territories and Canada.
Region 2	Europe, The Middle East, Japan and South Africa.
Region 3	Asia Pacific.
Region 4	South America and Australasia.
Region 5	Russia, Eastern Europe, Central Asia and Africa.
Region 6	China.

Chapter 8
Using the Restore CD

Use the Restore CD for the following:

- To restore all software including Windows 98.
- To restore lost or destroyed drivers or application programs.

Restoring Your Original Software

The Restore CD contains a copy of all software (e.g., Windows 98, drivers, and application programs) originally preinstalled on your hard disk. (This process may take about 20 minutes.)

There are two ways to restore the software:

- You can restore the software that came with your system without formatting the hard disk.

Warning

You must reinstall any software not originally installed on your hard disk drive.

- You can format the hard disk and then restore all original software.

Warning

If you format your hard disk, you lose all data that added files, programs, or other data on your hard disk since you purchased your system. If you must reinstall any software not originally installed on your hard disk. You don't want to lose your personal data on your hard disk, copy it to diskettes before formatting.

Follow these steps to restore your original preinstalled software:

1 Turn on the computer.

2 Insert the Restore CD into the CD/DVD-ROM drive before your computer boots up.

3 Restoration procedures will be started.

Note

To boot with your Restore CD, you must set 1st Boot Device option to ATAPI CDROM in the Setup program. The default setting is ATAPI CDROM. When you cannot boot with your Restore CD, check this option. For more information about the Setup program, see Chapter 4, "Using the BIOS Setup Program."

4 When the Microsoft Windows 98 Startup Menu appears, type the number 1 or 2 and press Enter.

Caution

If you select "1. RESTORE WINDOWS 98 - WILL FORMAT HDD", you will lose all data in the hard disk (C:).

Microsoft Windows 98 Startup Menu

1 RESTORE WINDOWS 98 - WILL FORMAT HDD
2 RESTORE WINDOWS 98 - WILL NOT FORMAT HDD
3 BOOT TO DOS PROMPT FROM CD-ROM

Enter a choice : _

Note

To stop this restore process now, remove the Restore CD from the CD/DVD-ROM drive and restart your computer.

5. If you select "1. RESTORE WINDOWS 98-WILL FORMAT HDD", the "Proceed with Format (Y/N)?" message will appear in the screen. To continue the procedures, type Y and press Enter.

6. All data in the Restore CD will be copied to your hard disk.

7. After the restoration process is completed, remove the Restore CD from your CD/DVD-ROM drive.

8. Press Enter to restart your computer.

Note

If the Restore CD is in the CD/DVD-ROM drive while your computer is booting, the computer will be booted with the Restore CD. In this case, the "Microsoft Windows 98 Startup Menu" menu will appear. To continue the restoration, remove the Restore CD from your CD/DVD-ROM drive and restart the computer

9. Windows 98 starts and the registration program runs.

10. To register with Microsoft for using your computer, follow the displayed messages. Enter your personal information and the Windows 98 Product Key (attached on the Windows 98 manual).

Installing Drivers or Application Programs

If you lose a driver or application program, install it by using the Restore CD that came with your system.

Follow these steps to drivers or application programs:

1. Insert the Restore CD into the CD/DVD-ROM drive when Windows 98 is started.
2. Double-click the My Computer icon on the desktop.
3. Double-click the CD/DVD-ROM icon in the My Computer window.
4. To start the Driver & Software installation program, double-click the SETUP.EXE icon in the CD/DVD-ROM folder.
5. Click a driver or application program menu to install or copy to your system. Also you can see all directories in the Restore CD by clicking the Browse this CD menu.

Note

If you move the mouse pointer to a menu title in the installation program window, the color of the menu will be changed.

6. Follow the instructions on the screen.

Appendix A
Specifications

Processor

- Intel Celeron processor in a PPGA package
- 66 MHz bus speed
- The processor depends on the model of computer you purchased.

Memory

Main Memory

- Two 168-pin 3.3 V DIMM sockets
- Supports up to 256 MB memory
- Unbuffered Synchronous DRAM (SDRAM)

Video Memory

- 4 MB video memory (SGRAM) on the mainboard

Intel 440LX AGPset and PCI/IDE Interface

Intel 82443LX PCI/A.G.P. controller (PAC)

- Integrated PCI bus mastering controller
- Integrated Accelerated Graphics Port (A.G.P.) controller

Intel 82371EB PCI/ISA/IDE Xcelerator (PIIX4E)

- Supports up to four IDE drives or devices
- Multifunction PCI-to-ISA bridge
- USB and DMA controllers
- Two fast IDE interfaces
- Power management logic
- Real-time clock

I/O Controller

ITE IT8673F Super I/O Controller

- Floppy drive interface
- One multimode parallel port
- FIFO serial port
- Keyboard and mouse controller

Built-in ATI Video Controller

ATI 3D RAGE PRO TURBO Graphics Controller

- 64-bit graphics accelerator with support for 3D, 2D and motion video
- Register compatible with VGA
- BIOS compatible with VESA for super VGA
- DDC1/2b/b+ monitor support
- VESA DPMS support
- Separate horizontal and vertical sync at TTL levels

Built-in Crystal Audio Controller

CS4280 CrystalClear PCI Audio Interface

- Full DOS Games Compatibility via PC/PCI, DDMA, and CrystalClear Legacy Support™
- PCI Version 2.1 Bus Master
- PC ’97 and PC ’98 Compliance (and compliance with preliminary PC ’99)
- MPU-401 interface, FM synthesizer, and Game Port
- Full Duplex Operation
- Win 95, 98 (WDM), WinNT 4.0, WinNT 5.0 (WDM) Drivers
- Advanced Power Management (PPMI)
- Digital Docking Solution with AC97 2.0 Codec

CS4297 CrystalClear SoundFusion Audio Codec ’97

- AC’97 1.03 Compatible
- Industry Leading Mixed Signal Technology
- 18-bit stereo full-duplex Codec with fixed 48KHz sampling rate
- Four analog line-level stereo inputs for connection from LINE IN, CD, VIDEO and AUX
- Two analog line-level mono inputs for speakerphone
- Mono microphone input switchable from two external sources
- High quality differential CD input
- Dual Stereo line level outputs
- Extensive power management support
- Meets or exceeds Microsoft’s PC ’97 and PC ’98 audio performance requirements.

Three usable expansion slots

- One ISA slot
- One PCI slot
- One shared PCI/ISA slot

Other features

- AMI BIOS
- Plug and Play compatible
- Advanced Power Management (APM)

Power Supply

The power supply specifications are inscribed on the label that attached on the power supply chassis in the system. To see the specifications of the power suppy, refer to the label. If you want to see the label, you need to remove the cover of your system.

Environmental Requirement

Temperature

- Operation : +5°C to 35°C
- Storage : -20°C to 60°C

Humidity

- Operation : 20% to 80% (No condensation)
- Storage : 10% to 90%

Appendix B
Solving Common Problems

This chapter instructs you how to deal with the problems you might experience when using your computer. The problem is listed first, followed by the solution. Read it before calling a technician if a problem occurs.

Power

My computer doesn't work.

Computer is not properly connected to a grounded wall outlet.

Make sure the power cord is firmly plugged into the wall outlet and into the computer.

Wall outlet is not working.

To check to see whether the wall outlet works, plug other device (such as a lamp) into the wall outlet. If it is not working, use other wall outlet.

Hard Disk Drive

Hard disk drive operation seems slow.

The files stored on your hard disk may be fragmented.

Check for lost allocation units by running Disk Defragmenter. (For more information, refer to the Windows 98 manual that came with your computer.)

Hard disk drive access indicator light stays on.

The files stored on your hard disk may be corrupted.

Check for lost allocation units by running Disk Defragmenter. (For more information, refer to the Windows 98 manual that came with your computer.)

CD/DVD-ROM Drive

The CD/DVD-ROM drive cannot read CD/DVD.

CD/DVD is not properly seated in the CD/DVD-ROM drive.

Eject the CD/DVD, gently but firmly press down on the CD/DVD to seat it in the drive, then reload.

Your CD/DVD-ROM drive is not recognized.

Turn off the computer, wait at least 30 seconds, and then turn on the computer.

CD/DVD has been inserted upside down.

Eject the CD/DVD, turn it over, then reload. (The label on the CD/DVD should be facing up.)

CD/DVD is dirty.

Clean the CD/DVD with a CD/DVD cleaning kit (available in computer stores).

CD/DVD is defected.

Try another CD/DVD. If it operates well, the CD/DVD is defected.

How to use the CD/DVD-ROM drive in Real MS-DOS mode?

If you reboot your computer by selecting “Restart in MS-DOS mode” option in “Shut Down Windows,” you can use the CD/DVD-ROM drive.

However, to use the CD/DVD-ROM drive in real MS-DOS mode, manually delete the “REM” of the line “REM Mscdex /d:gem001” in the AUTOEXEC.BAT file.

<AUTOEXEC.BAT>

...

REM [CD-ROM DRIVE]

Mscdex /d:gem001

...

Audio

How do I control the audio volume level.

To control the audio volume level, use the volume control box.

Click on the Speaker icon located on the right of your Windows taskbar. When the volume control box appears, drag the volume bar up or down to adjust the audio volume level.

To control the audio volume level for each device, use the Master Out window.

Double-click the Speaker icon located on the right of your Windows taskbar. When the Master Out window appears, in the each device area, drag the volume bar up or down to adjust the audio volume level.

Computer doesn’t produce any sound.

Audio has been muted.

Click on the Speaker icon located on the right of your Windows taskbar. When the volume control box appears, verify that the Mute option check box is empty.

Volume is turned down.

The volume level may be too low. Click on the Speaker icon located on the right of your Windows taskbar. When the volume control box appears, drag the volume bar upward.

The speakers are not properly connected.

Make sure that the speakers are properly connected to the computer.

Floppy Disk Drive

Floppy disk drive light stays on.

Diskette is incorrectly inserted.

Remove the diskette and reinsert it.

Diskette is damaged.

Use another diskette or check the diskette by running ScanDisk. (For detail information, refer to your Windows 98 manual.)

Floppy disk drive can't write to a diskette.

Diskette is unformatted.

Format the diskette. (Refer to your Windows Help in Windows 98. To open Windows Help, click the Start button, and then click Help.)

Diskette is write-protected.

Remove the write-protection or use another diskette that is not write-protected. To remove write-protection from a diskette, slide the small black tab on the back of the diskette to cover the hole.

Floppy disk drive can't read the diskette.

Diskette is unformatted.

Format the diskette. (Refer to your Windows Help in Windows 98. To open Windows Help, click the Start button, and then click Help.)

Display & Monitor

The monitor doesn't work.

The brightness and contrast controls aren't set properly

Adjust the brightness and contrast controls on the monitor.

The cable connecting the monitor to your computer isn't connected properly.

Make sure that the monitor connector is properly and securely connected to the video connector of your computer.

Monitor is not properly connected to a grounded wall outlet.

Make sure the power cord is firmly plugged into the wall outlet and into the monitor.

You have a screen blanking utility installed or your computer entered power management mode.

Press any key or move your mouse. Your current screen will reappear.

How do I change the display resolution or color depth

To change the display resolution or color depth, use the Display Properties window.

To change the display resolution and color depth, follow these steps:

1. Click the Start button, point to Settings, click Control Panel, and then double-click the Display icon. Or click the right mouse button on the empty desktop area and click Properties.

2. When the Display Properties window appears, click the Settings tab.

3. Select the color depth from the Colors area and the resolution from the Screen area. Click OK.

4. If you changed color depth, the system would reboot. If you changed resolution only, the screen will be changed to the new settings.

How do I use the old (existing) monitor that doesn't support the factory default display setting (SVGA mode, 800*600)?

To use the old (existing) monitor, you must start Windows in safe mode and set the resolution and color depth as follows:

1. Press the power button to start your system.
2. Press and hold the F8 key until the Microsoft Windows 98 Startup Menu appears.
3. Enter the number for Safe mode, and then press ENTER.

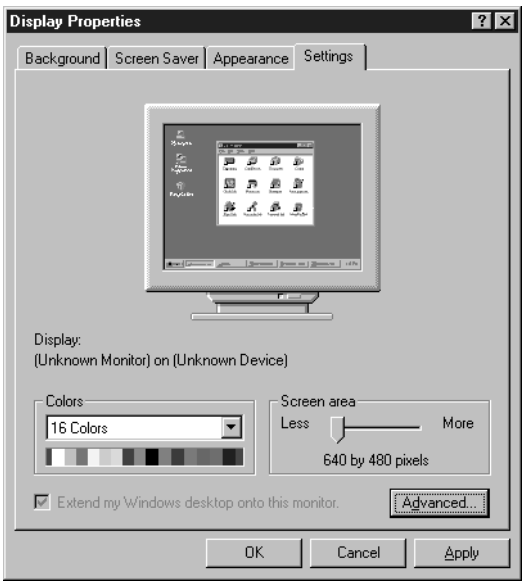
Microsoft Windows 98 Startup Menu

1. Normal
2. Logged (\BOOTLOG.TXT)
3. Safe mode
4. Step-by-step confirmation
5. Command prompt only
6. Safe mode command prompt only

Enter a choice : 3

4. Click OK in the Desktop window.
5. In the Windows 98 desktop, click the Start button, point to Settings, click Control Panel, and then double-click the Display icon. Or click the right mouse button on the empty desktop area and click Properties.
6. When the Display Properties window appears, click the Settings tab.

7. Click OK.



8. Click Yes to continue.
9. Click Yes to restart your computer.

Note

*In case your existing monitor supports higher resolutions or color depths than 640*480 and 16 Colors, change the resolution and color depth after restarting.*

10. If the Windows 98 screen doesn't appear on the monitor after restarting, turn off the computer and follow these steps.
11. Repeat the steps from 1 to 6.
12. Click Advanced.
13. Click the Adapter tab.
14. Click Change.

15. When the Update Device Driver Wizard window appears, click Next.
16. Check the “Display a list of all the drivers in a specific location, so you can select the driver you want.” option and click Next.
17. Select the Display adapters item in the list box and click Next.
18. Select the “Standard display types” menu in the Manufacturers list box and select the model for your system in the Models list box. Then click Next.
19. Click Yes.
20. Click Next.
21. Click Finish.
22. Click Close.
23. Click Close in the Display Properties window.
24. Click Yes to continue.
25. Click Yes to restart your computer.

Keyboard

Keyboard doesn’t work.

Keyboard isn’t firmly or securely connected to the keyboard connector.

Check that the keyboard is connected to the keyboard connector on the back of your computer, not the mouse connector.

Mouse

Mouse doesn't work.

Mouse isn't firmly or securely connected to the mouse connector.

Check that the mouse is connected to the mouse connector on the back of your computer, not the keyboard connector.

Mouse needs cleaning.

To clean the mouse ball, remove the mouse ball by unscrewing the bottom of the mouse. Then clean the mouse ball with a damp cloth and replace the mouse ball.

Option Card

After you add a PCI option card in the empty slot or change the slot location of your PCI option card, your computer isn't working properly.

Your computer can't recognize the option card.

To recognize the option card, follow these steps:

1. Click the Start button, and then point to Settings.
2. Click Control Panel.
3. Double-click the System icon.
4. Click the Device Manager tab in the System Properties window.
5. Click the Refresh button. This option updates the hardware list. This process may take a few minutes.

Appendix C
Approval Statements

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio and television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels that exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

For Canadian Users

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radio électriques dépassant les limites applicables aux appareils numériques de Class B prescrites dans le règlement sur le brouillage radio électrique édicté par le Ministère des Communications du Canada.

Battery Warning Instruction

Caution

If battery is incorrectly replaced there poses a danger of explosion. Replace battery only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Attention

Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du méme type ou d'un type recommandé par le constructeur. Mettre au rébut les batteries usagées conformément aux instructions du fabricant.

Vorsicht

Explosionsgefahr bei unsachgemäß em Austausch der Batterie. Ersatz nur durch denselben oder einen vom Hersteller empfohlenen ähnlichen Typ. Entsorgung gebraushter Batterien nach Angaben des Herstellers.

Fuse Warning Instruction

Caution

For continued protection against risk of fire, replace only with same type and rating of fuse. Disconnect input power before servicing. Only connect this equipment to an earthed socket outlet.

Vorsicht

Vor jeder service-arbeit netzstecker ziehen! Apparatet ma kun tilkobles jordet stikkontakt.

Attention

Debrancher avant d'ouvrir. Apparaten skall anslutas till jordat nätuttag.

Atencion

Desconecte fuerza electrica antes del servicio. Laite on liitettävä suojakosketinistoraasian.

Laser Product

Class 1 Laser Product

This equipment complies with European Standard EN60825 [harmonized with International Electrotechnical Commission (IEC) Publication 825].

This equipment is classified as a Class 1 LASER product and there is no hazardous LASER radiation with the safety protection.

Caution

The laser used in the CD-ROM drive can damage your eyes. Do not attempt to open the cover.

To reduce the risk of electric shock, do not remove cover (or back).

No user-serviceable parts inside.

Refer servicing to qualified service personnel.

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Do not open the top cover of the drive and never touch the internal parts in order to avoid EXPOSURE TO INVISIBLE LASER RADIATION.

When the power switch is On, do not place your eyes close to the font panel opening door and other openings to look into the inside of the drive.

Achtung

Um die Gefahr eines elektrischen Schlages zu Vermindem, Entfernen Sie nicht das Gehäuse.

Keine durch den Anwender zu reparierende Teile im innern.

Überlassen Sie den Service qualifiziertem Service-Personal.

Da der im CD-ROM Laufwerk benutzte Laser gefährlich für die Augen ist, sollten Sie kenieswegs versuchen das Gehäuse zu Öffnen.

Lassen Sie den Service nur durch qualifizierte Servicestellen

durchfuhern.

Attention

Pour reduire les risques de decharges, ne demontez pas le capot (ou le panneau arriere) du lecteur.

Aucune des pieces internes ne doit etre manipulee par l'utilisateur.

Toute interventien doit etre effectuee par un personnel qualifie.

Le rayon laser utilisé dans le lecteur CD-ROM est invisible à l'ceil nu. N'essayez donc pas de démonter le boiter. Pour toute intervention, adressez-vous à un personnel qualifié.

Warning

To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

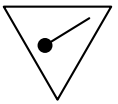
Avertissement

Pour réduire les risques d'incendie ou de choc électrique, n'exposez pas cet appareil à la pluie ou à l'humidité.

Wanung

Um die Gefahr eines Feuers oder eines elektrischen Schlages zu vermeiden, setzen sie dieses Gerät niemals Regen oder Feuchtigkeit aus.

Use of controls or performance of procedures other than those specified herein may result in hazardous radiation exposure.



PRODUCT COMPLIES WITH DHHS
RULES 21 C.F.R. SUB-CHAPTER J,
IN EFFECT AT THE DATE OF MANUFACTURE.

CLASS 1 LASER PRODUCT
LASER KLASSE 1
LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT
APPAREIL A LASER DE CLASSE 1
EN60825

CAUTION - INVISIBLE
LASER RADIATION WHEN OPEN
DO NOT STARE INTO BEAM OR VIEW
DIRECTLY WITH OPTICAL
INSTRUMENTS

VORSICHT - UNSICHTBARE
LASERSTRAHLUNG, WENN ABDECKUNG
GEÖFFNET
NICHT IN DEN STRAHL BLICKEN
AUCH NICHT MIT OPTISCHEN
INSTRUMENTEN

ADVARSEL -USYNLIG
LASERSTRÅLING VED ÅBNING.
SE IKKE IND I STRÅLEN - HELLER
IKKE MED OPTISKE INSTRUMENTER.

ADVARSEL - USYNLIG
LASERSTRÅLING NÅR DEKSEL ÅPNES.
STIRR IKKE INN I STRÅLEN ELLER SE
DIREKTE MED OPTISKE
INSTRUMENTER.

VARNING - OSYNLIG
LASERSTRÅLNING NÄR DENNA DEL ÄR
ÖPPNAD.
STIRRA EJ IN I STRALEN OCH BETRAKTA
EJ STRÅLEN MED OPTISKA INSTRUMENT

VARO! NÄKYMÄTÖNTÄ
AVATTAESSA
OLET ALTTIINA LASERSÄTEIL YLLE.
ÄLÄ TUIJOTA SÄTEESEEN ÄLÄKÄ
KATSO SITÄ OPTISEN LAITTEEN LÄPI.

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